Misc 3

BP

Faxed

NPDES Compliance File Lake Co.

October 6, 2006

BP Products North America Inc.
Whiting Business Unit
2815 Indianapolis Blvd.
PO Box 710
Whiting, IN 46394-0710

Mr. Gary Starks
Indiana Department of Environmental Management
Office of Water Management
100 North Senate
Indianapolis, IN 46206-6015

RE: NPDES Permit No. IN 0000108
Oil Sheen to Lake Michigan from Outfall 002 Once Through Cooling Water effluent

Dear Mr. Starks:

This letter serves as our written follow-up to our initial phone notification to IDEM on Monday October 2, 2006, concerning the visible oil sheen on Lake Michigan from our NPDES permitted outfall 002. We became aware of the possible non-compliance on the lake at approximately 5:50 pm (CST) on October 2, 2006 when heavy rain hit the area and our process sewers backed up. At this time the US Coast Guard, NRC, IDEM, and LEPC were notified.

Our internal BP emergency response team initially responded to mitigate the oil spill. Our hazmat team deployed booms to the lake and diapers and absorbents directly into our #6 Separator in order to eliminate any further release to the lake. Vacuum trucks were also deployed helping to remove the oil from our separators and sewers. The Haz-Mat team surveyed the surrounding beaches and area and did not detect any presence of oil/hydrocarbons. The sheen on the lake was already dispersing due to the choppy waters.

Early estimates on the volume released to the lake are less than 1 gallon. It is suspected that high process sewer levels may have caused a back up into a once through cooling water (OTCW) overflow sump at our Air Compressor House Unit which has a temporary pump in place to discharge the cooling water to the OTCW system. The overflow sump normally discharges to our process sewer, however, the temporary pump was installed to take this overflow to the once through cooling water where it should discharge. When the process sewers backed up, the oily water flowed into the sump, and the sump pump discharged it to the OTCW system. Analytical data confirms that this is the source of the oil to our OTCW 6 sep outfall 002. An incident investigation for this event will be conducted.

If you have any further questions please call Ms. Rose Herrera of my staff at 219-473-3393.

Sincerely,

Linda Wilson

Linda J. Wilson
Environmental Superintendent
BP Whiting Refinery

bp

Faxed

NPDES Compliance File
LAKE Co.

August 10, 2006

BP Products North America Inc
Whiting Business Unit
2815 Indianapolis Blvd
PO Box 710
Whiting, IN 46394-0710

Mr. Gary Starks
Indiana Department of Environmental Management
Office of Water Management
100 North Senate
Indianapolis, IN 46206-6015

RE: NPDES Permit No. IN 0000108
Oil Sheen to Lake Michigan from Outfall 002 Once Through Cooling Water effluent

Dear Mr. Starks:

This letter serves as our written follow-up to our initial phone notification to IDEM on Thursday August 3, 2006, concerning the visible oil sheen on Lake Michigan from our NPDES permitted outfall 002. We became aware of the possible non-compliance on the lake at approximately 6:00 am (CST) on August 3, 2006 when heavy rain hit the area. At this time the US Coast Guard, NRC, IDEM, and LEPC were notified.

Our internal BP emergency response team initially responded to mitigate the oil spill. Our hazmat team deployed booms to the lake and diapers and absorbents directly into our #6 Separator in order to eliminate any further release to the lake. Vacuum trucks were also deployed helping to remove the oil from our separators and sewers. The Haz-Mat team surveyed the surrounding beaches and area and did not detect any presence of oil/hydrocarbons. The sheen on the lake was already dispersing due to the choppy waters.

Early estimates on the volume released to the lake are 1 gallon. Follow up action items from a previous incident investigation are underway and most are completed. Precautions were taken the night before this incident in anticipation of the rain. These precautions helped to prevent a worse situation from happening however; it was still unable to prevent the oil from getting to the lake. Some of these precautions included standby vacuum trucks, water shed mode for the refinery, keeping 6 separator levels high so sewer levels are lower, adequate supply of diapers and oil absorbent boom, and an extra operator on site. It is again suspected that the high levels in the process sewers may have found a breach in a previously sealed cross connection to the once through cooling water.

bp

Comp

Lake Co.

Faxed

IDEM
OFFICE OF
WATER QUALITY

MAR 21 8 30 AM '06

March 17, 2006

Whiting Business Unit
BP Products North America Inc.
2815 Indianapolis Blvd.
PO Box 710
Whiting, IN 46394

Mr. Gary Starks
Indiana Department of Environmental Management
Office of Water Management
100 North Senate
Indianapolis, IN 46206-6015

cc: Don Daily
Michael Russ/NWRO
Bob Simmons/NWRO

RE: NPDES Permit No. IN 0000108
Exceedance of Daily Maximum Limit for Total Suspended Solids at Outfall 001

Dear Mr. Starks:

This letter serves as our written follow-up to our initial phone notification on March 15, 2006, concerning the exceedance of the daily maximum limit for total suspended solids (TSS) at Outfall 001 on March 13, 2006. We became aware of the possible non-compliance at approximately 3:30 pm (CST) on March 14, 2006 when the initial composite sample analysis was completed. The initial analysis of the composite sample showed an unusually high unexpected TSS value.

In order to verify the initial analytical result, subsequent internal lab analysis and third party analysis were completed on March 15th. When the additional analysis results were averaged with the original lab results it was verified that we had indeed exceeded our daily maximum allowable loading rate of TSS at Outfall 001. The calculated average TSS result is now 43 mg/l, the calculated loading rate is estimated at 5,846 pounds, which is above our NPDES permit limit of 5,694 pounds TSS maximum daily load.

A third party incident investigation is underway as to the cause of this unexpected exceedance. TSS values from the day before the incident and the day after were well within our compliance limits and no unusual problems were noted at our WWTP facility during this time period. No other actions were necessary at this time. Current TSS values are normal and below permitted limits.

If you have any further questions please call Mr. Richard Harris of my staff at 219-473-3321.

Sincerely,

Linda Wilson

Linda J. Wilson
Environmental Superintendent
BP Whiting Refinery

Faxed

NPDES Compliance File
Lake Co

June 16, 2006

Whiting Business Unit
BP Products North America Inc.
2815 Indianapolis Blvd.
PO Box 710
Whiting, IN 46394

Mr. Gary Starks
Indiana Department of Environmental Management
Office of Water Management
100 North Senate
Indianapolis, IN 46206-6015

RE: NPDES Permit No. IN 0000108
Oil Sheen to Lake Michigan from Outfall 002 Once Through Cooling Water effluent

Dear Mr. Starks:

This letter serves as our written follow-up to our initial phone notification to IDEM on Saturday June 10, 2006, to concerning the visible oil sheen on Lake Michigan from our NPDES permitted outfall 002. We became aware of the possible non-compliance on the lake at approximately 6:15 am (CST) on June 10, 2006 when the operations personnel performed their routine inspections. At this time the US Coast Guard, NRC, IDEM, and LEPC were notified. Heavy rains and winds were present since earlier that morning and it is suspected that the high levels in the process sewers caused a breach in a previously sealed cross connection to the once through cooling water.

Our internal BP emergency response team initially responded to mitigate the oil spill. Due to the rough waters on the lake the Haz-Mat Team deployed booms and diapers directly into our #6 Separator in order to eliminate any further release to the lake. Vacuum trucks were also deployed helping to remove the oil from our separators and sewers. During the incident representatives from the DNR and Coast Guard were on hand to observe the situation/incident. The Haz-Mat team surveyed the surrounding beaches and did not detect any presence of oil/hydrocarbons. The sheen on the lake was already dispersing due to the choppy waters.

Early estimates on the volume released to the lake are ~20 gallons. An incident investigation is underway to determine if this is indeed the cause of this unexpected occurrence.

If you have any further questions please call Ms. Rose Herrera of my staff at 219-473-3393.

Sincerely,

Linda J. Wilson

Linda J. Wilson
Environmental Superintendent
BP Whiting Refinery

Copy: Tim Janowski, DNR

bp

NPDES Compliance File
Lake Co.

Faxed

March 17, 2006

Whiting Business Unit
BP Products North America Inc
2815 Indianapolis Blvd
PO Box 710
Whiting, IN 46394

Mr. Gary Starks
Indiana Department of Environmental Management
Office of Water Management
100 North Senate
Indianapolis, IN 46206-6015

RE: NPDES Permit No. IN 0000108
Exceedance of Daily Maximum Limit for Total Suspended Solids at Outfall 001

Dear Mr. Starks:

This letter serves as our written follow-up to our initial phone notification on March 15, 2006, concerning the exceedance of the daily maximum limit for total suspended solids (TSS) at Outfall 001 on March 13, 2006. We became aware of the possible non-compliance at approximately 3:30 pm (CST) on March 14, 2006 when the initial composite sample analysis was completed. The initial analysis of the composite sample showed an unusually high unexpected TSS value.

In order to verify the initial analytical result, subsequent internal lab analysis and third party analysis were completed on March 15th. When the additional analysis results were averaged with the original lab results it was verified that we had indeed exceeded our daily maximum allowable loading rate of TSS at Outfall 001. The calculated average TSS result is now 43 mg/l, the calculated loading rate is estimated at 5,846 pounds, which is above our NPDES permit limit of 5,694 pounds TSS maximum daily load.

A third party incident investigation is underway as to the cause of this unexpected exceedance. TSS values from the day before the incident and the day after were well within our compliance limits and no unusual problems were noted at our WWTP facility during this time period. No other actions were necessary at this time. Current TSS values are normal and below permitted limits.

If you have any further questions please call Mr. Richard Harris of my staff at 219-322-3321.

Sincerely,

Linda Wilson

Linda J. Wilson
Environmental Superintendent
BP Whiting Refinery

BCC: L. J. Wilson
R. A. Harris
File Incidents\2006
E-file I:\environmental\Incidents\2006\031306-TSSupset

NPDES Compliance File
Lake Co.

bp

Fax Message

BP Products North America Inc
Whiting Business Unit
2815 Indianapolis Blvd.
P. O. Box 710 – MC 122
Whiting, IN 46394-0710

Telephone: 219-473-3321
Fax: 219-473-5379
E-mail harrisra@bp.com

From: Richard A. Harris

Date:

Team: Health, Safety, Security & Environmental
Environmental Engineer

Pages to follow:

URGENT ☐ ORDINARY ☒ CONFIDENTIAL ☐

To: Gary Starks

Copy to:

Company:

Name:

Fax no: 317-232-8637

Message:

follow up fax to my phone message.
Please contact me with questions 219-473-3321.

bp

Document Level:	4
Document Number:	EF-ONCALL-001.1
Document Review Date:	August 11, 2005
Document Revision Date:	August 11, 2005
Document Revision #	1

BP Whiting Business Unit
ENV ONCALL – Agency Communication
Documentation Form

Documentation of Agency Communication

BP Products North America, Inc.
Whiting Business Unit
2815 Indianapolis Blvd.
Whiting, IN 46394-0710
Lake County

NRC: 800-424-8802
LEPC: 219-755-3512
HDEM: 219-853-6306
IDEM: 888-233-7745

BP Contact(s)*: Richard .A Harris

BP Contact phone #(s)*: 219-473-3321

Contact Date*: 03-15-2006

Agencies contacted:	NRC		IDEM	x	LEPC	
Time of contact:	NRC		IDEM	12:50 pm	LEPC	
Agency Contact Name:	NRC		IDEM	Gary Starks Rebeca McMonigle	LEPC	
Agency Contact Title:	NRC		IDEM	Office of water Quality	LEPC	
Incident Number(s):**	NRC		IDEM	Not provided	LEPC	

Subject: NPDES LIMIT EXCEDANCE

Location of release*: BP PRODUCTS NORTH AMERICA Inc. outfall 001

Date &Time of Spill*: Initial Analytical available 03/14/06 2:00 pm for Sample collected on 3/13/03.

Substance released*: TSS / BYPASS OPEN

Approximate amount of substance released*:

Approximate amount of substance recovered:**

Method of recovery:**

Duration of release*:

Source of release*: Waste Water Treatment Plant

Impacted media (air, soil, concrete): Water

Name and locations of any damaged waters*: Lake Michigan

Any Injuries/fatalities: na

Description of area affected (Square feet or Cubic feet):** na

Name of any response organizations involved*: na

Weather conditions at time of release: High Winds and Thunderstorms

Wind speed and direction:

Disposal of Recovered material:**

Is there a Contingency Plan and was it implemented:**

List preventive measure to eliminate recurrence:** Investigation underway

Measures taken or to be taken to perform spill response

Any other information significant to response action*: TSS PERMIT LIMIT IS 5694 LBS/DAY RESULT WAS 5846 LBS/DAY

I AM FAXING THIS DOCUMENT AS VERIFICATION THAT CONTACT WITH YOUR OFFICE WAS MADE ON 3/15/06.

*Items required by IDEM per 327 IAC 2-6.1-4(17)
** Items required by IDEM per 327 IAC 2-6.1-7(4)

RETURN COMPLETED FORM VIA EMAIL TO ENVIRONMENTAL ON-CALL DISTRIBUTION LIST.

bp

Late Co.

Whiting Business Unit
BP Products North America Inc.
2815 Indianapolis Blvd.
P.O. Box 710
Whiting, IN 46394-0710
USA

EM
CE OF
QUALITY
SEP 15 1 35 PM '05

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

cc: Don Daily
Michael Kuss/NWRO

September 15, 2005

Don Daily
Section Chief Compliance Evaluation
OWQ Compliance Branch
Indiana Department of Environmental Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

Re: BP Products, NA Whiting Refinery NPDES Permit No. IN0000108, Notification of Maintenance Activity and bypass of Clarifier

Dear Mr. Daily,

This letter is to inform you that the BP Whiting Refinery Waste Water Treatment Plant (WWTP) will take one of its two clarifiers out of service for maintenance and inspection from approximately October 24 through November 18, 2005. This notice is being given to your department in anticipation of a bypass of treatment facilities as is required by our NPDES permit IN0000108, Section B (2)b.

We have two clarifiers that normally receive equal flow and operate in parallel before final filtration of our effluent to outfall 001. One of these clarifiers (tank 5005) will be taken out of service for internal repairs and maintenance. In order to minimize any negative impacts during this time, BP has taken proactive steps to ensure that permit requirements will be met during this time period by identifying temporary flow reductions within the refinery, enacting our normal water shed plan, optimizing the use of polymer and treatment additives as needed in the one clarifier remaining in service, choosing a month where wet weather and temperatures are minimized, as well as close monitoring of several water treatment plant operating parameters such as DO and sludge volumes.

We will plan to utilize the one clarifier for all or our flow treatment and do not intend to bypass this treatment step. However, there is a 10 million gallon storm surge tank that will be emptied prior to the outage which will be used in case of emergency impoundment of refinery waste water or if there becomes a need to bypass any treatment steps at the WWTP. Your office will be notified if such a need does occur.

Please contact Rose Herrera (219) 473-3393 if you have any questions regarding this notice.

Sincerely,

Linda Wilson

Linda J. Wilson
Environmental Superintendent

I:Environmental\Water\WAT-NPDES\Agency Corr\2005

pfile compliance

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

February 10, 2003

Karleen James
Environmental Superintendent, HSE
BP Products North America, Inc.
Whiting Business Unit
2815 Indianapolis Blvd.
P.O. Box 710
Whiting, Indiana 46394-0710

Dear Ms. James:

Re: January 27, 2003 Exceedence Report
Amoco Whiting Unit
NPDES Permit No. IN0000108
Lake Co.

I am in receipt of your report concerning the exceedence of your facility's Total Suspended Solids (TSS) limit. Although the report is timely, I am concerned about the degree of the exceedence. The discharge of 35,420 lbs. vs a limit of 5,694 lbs., was more than six times the allowable limit. I wonder why the increase in oil recoveries and solids loadings wasn't foreseen and more effectively managed. Consequently, I request an explanation of the excess loadings and the problems with holding them until they could be properly treated. Please reply within twenty (20) days from the date of this letter.

If you have any questions, you may call me at (317) 232-8630, or write to me at the above address.

Sincerely,

Greg Glover
Sr. Environmental Mgr.
Compliance Evaluation Section
Office of Water Quality

Indiana Department of Environmental Management
Office of Water Quality
Noncompliance Notification Fax Form

Complete all parts of this form and fax it to the Office of Water Quality at (317) 232-8637. This report will satisfy the telephone and written noncompliance notification requirements of your NPDES permit.

Noncompliance resulting in a fish kill or other severe environmental damage must be reported to the Office of Emergency Response at: (317) 233-7745 or toll free within Indiana at (888) 233-7745.

Facility Name:	City or County:	Permit Number:
BP / Amoco - Whiting Ref	Lake	IN 0000108
Individual Reporting:	**Phone Number:**	**Report Date:**
Richard Harris	(219) 473-3321	11/14/02
Noncompliance Date:	**Outfall:**	
11/13/02		

Parameter:	Limit (Units/Daily/Weekly/Ave/Max/Min):	Reported:
TSS	5694 lbs/day	6885 lbs/day
Parameter:	**Limit (Units/Daily/Weekly/Ave/Max/Min):**	**Reported:**
Parameter:	**Limit (Units/Daily/Weekly/Ave/Max/Min):**	**Reported:**

Reason for Noncompliance:

Unknown - rechecking sampling procedures etc.

Actions taken to prevent, minimize, or mitigate damage:

Running back wash manually

Actions taken to prevent reoccurrence:

Signature:

GTG

Indiana Department of Environmental Management
Office of Water Quality
Noncompliance Notification Fax Form

Complete all parts of this form and fax it to the Office of Water Quality at (317) 232-8637. This report will satisfy the telephone and written noncompliance notification requirements of your NPDES permit.

Noncompliance resulting in a fish kill or other severe environmental damage must be reported to the Office of Emergency Response at: (317) 233-7745 or toll free within Indiana at (888) 233-7745.

Facility Name:	City or County:	Permit Number:
BP Amoco - Whiting	Lake	IN 0000108
Individual Reporting:	**Phone Number:**	**Report Date:**
Natalie Grimmer	(219) 473-5417	2/19/03
Noncompliance Date:	**Outfall:**	
	001	

Parameter:	Limit (Units/Daily/Weekly/Ave/Max/Min):	Reported:
Color		2/19/03 discoloration
Parameter:	**Limit (Units/Daily/Weekly/Ave/Max/Min):**	**Reported:**
Parameter:	**Limit (Units/Daily/Weekly/Ave/Max/Min):**	**Reported:**

~~Reason for Noncompliance:~~

2/21 Rose Herrera left VM. - No violation of parameters. per lab tests.

Actions taken to prevent, minimize, or mitigate damage:

Actions taken to prevent reoccurrence:

Signature:

Indiana Department of Environmental Management
Office of Water Quality
Noncompliance Notification Fax Form

Complete all parts of this form and fax it to the Office of Water Quality at (317) 232-8637. This report will satisfy the telephone and written noncompliance notification requirements of your NPDES permit.

Noncompliance resulting in a fish kill or other severe environmental damage must be reported to the Office of Emergency Response at: (317) 233-7745 or toll free within Indiana at (888) 233-7745.

Facility Name:	City or County:	Permit Number:
BP/Amoco - Whiting	Lake	IN 000108
Individual Reporting:	**Phone Number:**	**Report Date:**
Richard Harris	(219) 473-3321	1/23/03
Noncompliance Date:	**Outfall:**	
1/22/03		

Parameter:	Limit (Units/Daily/Weekly/Ave/Max/Min):	Reported:
TSS	5694 lbs/day	35,420 lbs
Parameter:	Limit (Units/Daily/Weekly/Ave/Max/Min):	Reported:
Parameter:	Limit (Units/Daily/Weekly/Ave/Max/Min):	Reported:

Reason for Noncompliance:

Increase in oil recovery water combined w/ lower biological activity due to cold weather overwhelmed biological treatment facility.

Actions taken to prevent, minimize, or mitigate damage:

Flows to facility were reduced + water from refinery process was impounded until biological system could recover.

Actions taken to prevent reoccurrence:

Signature:

Indiana Department of Environmental Management
Office of Water Quality
Noncompliance Notification Fax Form

Complete all parts of this form and fax it to the Office of Water Quality at (317) 232-8637. This report will satisfy the telephone and written noncompliance notification requirements of your NPDES permit.

Noncompliance resulting in a fish kill or other severe environmental damage must be reported to the Office of Emergency Response at: (317) 233-7745 or toll free within Indiana at (888) 233-7745.

Facility Name: Amoco / BP - Whiting	City or County: Lake	Permit Number: IN0000108
Individual Reporting: Richard Harris	Phone Number: (219) 473-3321	Report Date: 1/24/03
Noncompliance Date: 1/22/03	Outfall:	

Parameter: TSS	Limit (Units/Daily/Weekly/Ave/Max/Min): 5694 lbs/day	Reported: 7756 lbs/day
Parameter:	Limit (Units/Daily/Weekly/Ave/Max/Min):	Reported:
Parameter:	Limit (Units/Daily/Weekly/Ave/Max/Min):	Reported:

Reason for Noncompliance:

Same as Previous report. Increase in oil recovery water overwhelmed plant

Actions taken to prevent, minimize, or mitigate damage:

Reduced flows to treatment system, + impounded refinery water

Actions taken to prevent reoccurrence:

Signature:

GTG

Compliance - Lake

bp

OFFICE
OF
WATER MANAGEMENT
IDEM

DEC 4 4 15 PM '02

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Whiting Business Unit
2815 Indianapolis Blvd.
PO Box 710
Whiting, IN 46394-0710

November 27, 2002

Mr. Greg Glover
Indiana Department of Environmental Management
Office of Water Management
100 North Senate
Indianapolis, IN 46206-6015

RE: NPDES Permit No. IN 0000108
Exceedance of Daily Maximum Limit for Total Suspended Solids at Outfall 001

Dear Mr. Glover:

This letter serves as a follow-up to our initial phone notification on November 22, 2002, concerning the exceedance of the daily maximum limit for total suspended solids (TSS) at Outfall 001 on November 20, 2002. We became aware of the non-compliance at approximately 2:30 pm (CST) on November 21, 2002 when the initial composite sample analysis was completed. The initial analysis of the November 20 composite sample was 120 mg/l TSS. The discharge loading from Outfall 001 was calculated at 7,506 pounds of TSS. Our daily maximum allowable TSS is 5,694 pounds. We were back in compliance with the TSS discharge loading the next day.

As a precautionary measure BP continued its water shedding program, reduced the outfall flows, and called for a third party analysis of our findings. An investigation is currently underway to identify the cause of the exceedance.

Sincerely,

for Ms. Karleen James
Environmental Superintendent, HSE

Compliance/Lake

bp

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

OFFICE OF WATER MANAGEMENT
NOV 25 3 29 PM '02

Whiting Business Unit
2815 Indianapolis Blvd.
PO Box 710
Whiting, IN 46394-0710

November 21, 2002

Mr. Greg Glover
Indiana Department of Environmental Management
Office of Water Management
100 North Senate
Indianapolis, IN 46206-6015

RE: NPDES Permit No. IN 0000108
Potential Exceedance of Daily Maximum Limit for Total Suspended Solids at Outfall 001

Dear Mr. Glover:

This letter serves as a follow-up to our initial notification on November 14, 2002, concerning the potential exceedance of the daily maximum limit for total suspended solids (TSS) at Outfall 001 on November 13, 2002. We became aware of the possible non-compliance at approximately 12:35 pm (CST) on November 14, 2002 when the initial composite sample analysis was completed. The initial analysis of the November 13 composite sample was 172 mg/l TSS. The discharge loading from Outfall 001 was calculated at 7,029 pounds of TSS. Our daily maximum allowable TSS is 5,694 pounds.

In order to verify the above initial analytical result, subsequent internal lab analysis and third party analysis were completed. When the additional analysis results were averaged with the original lab result it was found that we did **not** exceed our daily maximum allowable loading rate of TSS at Outfall 001. The additional analysis from the composite sample of 11/13/02 showed the average TSS result to be 121.3 mg/l , the calculated loading rate is now estimated at 4,957 lbs, which is below our NPDES permit limit of 5,694 pounds TSS maximum daily load.

As a precautionary measure, BP began its water shedding plan at approximately 4 pm on November 13, 2002, when the WWTP effluent turbidity sample was reviewed as being higher than normal. As part of the watershed program, the refinery reduced the process wastewater flow rates to the sewers and minimized flows to the WWTP. In addition, the WWTP performed manual backwashes of the final filter systems to maintain low turbidity at the outfall. The watershed program is still in place as of this date and we will continue our watershed program as necessary.

Sincerely,

Karleen James

Karleen James
Environmental Superintendent, HSE

bp

Whiting Business Unit

Compliance

OFFICE
OF
WATER MANAGEMENT
IDEM

AUG 8 1 22 PM '01

BP Amoco Corporation
1815 Indianapolis Blvd.
PO Box 710
Whiting, IN 46394-0710

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

August 3, 2001

Mr. Greg Glover
Indiana Department of Environmental Management
Office of Water Management
100 North Senate
Indianapolis, IN 46206-6015

Dear Mr. Glover:

NPDES Permit No. IN 0000108 - Exceedance of Daily Maximum Limit for Total Suspended Solids at Outfall 001 July 25 and 26, 2001

This letter serves as a follow-up to our initial notification on July 27, 2001 concerning the exceedance of the daily maximum limit for total suspended solids (TSS) at Outfall 001 on July 25 and 26, 2001. We became aware of the noncompliance at approximately 2 PM (CST) on July 27, 2001, when we received the confirmation of the analytical result for this parameter for the Outfall 001 July 25, 2001 composite sample and the result for the July 26, 2001 composite sample. The TSS discharge loadings from Outfall 001 on July 25 and 26, 2001 were 6,335 pounds and 10,019 pounds, respectively. Our daily maximum allowable TSS loading is 5,694 pounds. The exceedance for this parameter was limited to the two days, July 25 and 26, 2001. The Outfall 001 discharge met all permit limits starting July 27, 2001, as documented by subsequent analytical testing. The TSS on July 27, 2001 was 2,140 pounds. These results will be reported on the refinery's Discharge Monitoring Report for July 2001.

The main cause of the permit excursion of TSS was due to the heavy rainstorms that the refinery encountered from July 22, 2001 through the afternoon of July 23, 2001. There were three separate storm events in which up to 4"of rain fell within this timeframe. Subsequently, the refinery had to process substantially higher than normal flows through its wastewater treatment plant (WWTP). Additionally, there were unexpected higher contaminant loadings to the WWTP from the refinery prior to the storms. The increased hydraulic loading in combination with the increased contaminant loadings put an unexpected stress on the WWTP, which led to the two day TSS excursion.

Every possible effort was made to avoid a permit noncompliance. The refinery implemented its water shedding plan to reduce the water flow to the WWTP from the process units. A refinery wide directive was initiated to minimize any drainings to the sewer. Additionally, the refinery optimized its wastewater treatment operations to minimize the impact on TSS loadings.

The refinery will review the causes of the TSS exceedance and evaluate opportunities to prevent its recurrence. If you have any questions or require additional information, please contact Natalie Grimmer of my staff at (219) 473-5417.

Sincerely,

Stephen D. Simko
Environmental Superintendent, HSE
BP Whiting Business Unit

State Form 47989(R/4-97)

LAKE Co.

IDEM	INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER MANAGEMENT **NPDES Facility Inspection Report**	100 NORTH SENATE AVENUE P. O. BOX 6015 INDIANAPOLIS, IN 46206-6015

NPDES PERMIT #:	YR/MO/DAY:	INSPECTION TYPE:	INSPECTOR:	FACILITY TYPE CODE:
IN0000108	01-09-19	C	S	☐1 ☒2 ☐3 ☐4 ☒Major ☐Minor ☐Municipality ☒Industry ☐Semi-Public ☐State

OVERALL FACILITY EVALUATION RATING: 3

COMPLIANCE STATUS: See page 3 (bottom) ☐ Non-Compliance ☒ Compliance

Name and Location of Facility Inspected:	Receiving Waters/POTW:	Permit Effective Date:
BP Products North America Inc. 2815 Indianapolis Blvd Town/City: Whiting, IN County: Lake Co.	Lake Michigan + IHSC Entry Time: Exit Time:	4-1-90 Permit Expiration Date: 2-28-95

Name(s) of On-Site Representatives: 46394	Title(s):	Phone:
Natalie Grimmer	Environmental Engr	(219) 473-5417
		Fax: ( ) -3321
Rich Harris	Environmental Engr	Phone: ( )
		Fax: ( ) -5379

Certified Operator:	Number: 1418	☒ Full Time
David Olen	Class: D Exp: 6-02	☐ Part Time (Hours per week:_____)

Name, Address of Responsible Official:	Title:	Phone:
Ashok K. Jhavar	Business Unit Leader	(219) 473-3179
		Fax: ( )

Contacted: ☒ Yes → Stan Sorrels, MGR Health, Safety, and Environ. ☐ No

Areas Evaluated During Inspection
(S=Satisfactory, M=Marginal, U=Unsatisfactory, N=Not Evaluated, N/A=Not Applicable)

S	Effluent (1)	S	Facility Site Review	M	Flow Measurement (3)	N/A	Pretreatment
S	Receiving Waters	S	Operation & Maintenance	S	Laboratory	S	Other: Sampling
M	Permit Expired (2)	N/A	CSO/SSO (Sewer Overflow)	M	Self-Monitoring Program (4)	M	By Passing (5)
N/A	Compliance Schedules	S	Sludge Disposal	S	Records/Reports		

COMMENTS: This inspection was conducted on 9-19-01 and 9-20-01.

(1) The Final effluent was observed at outfall 001, to be brown in color on 9-19-01, and a light tan color on 9-20-01. The effluent did not appear to contain excessive solids or turbidity. The brown discoloration may be due to the use of the incinerator on 9-19-01, while the incinerator was not operating on 9-20-01 See the attached photographs taken on 9-20-01, no photos were taken on 9-19-01. Only three TSS violations in 200 and 2001 through July 2001.

(2) ~~Amoco~~ BP Re-applied for the NPDES permit in 1994 prior to the expiration date, and on 4-25-01 BP received a letter from IDEM requesting additional information. BP submitted a response to the IDEM on August 22, 2001. See attached copies of these letters

(3) The actual discharge flow at outfall 001 is not measured by a separate flow meter dedicated to this waste stream. The flow is measured by measuring the influent and subtracting out measured flow of various waste streams.

Name(s) and Signature(s) of Inspector(s):	Date:	Office/Telephone:
Michael Kuss	9-20-01	IDEM (219) 881-6717
Received By:	**Date:**	**Referred to:**
Section Chief: R L Pearson	**Date:** 10/15/01	**For:** ☐ Follow-up ☐ Enforcement ☐ NPDES ☐ Other

DISTRIBUTION: White - Public File; Canary - Site Copy; Pink - Inspector; Goldenrod - Supervisor

State Form 44229(R/4-97)

IDEM	NPDES Facility Inspection Report **Comments and/or Recommendations**	PAGE 2 OF 3

NPDES PERMIT #:	FACILITY:	CITY:	YR/MO/DAY:
IN 0000108	BP	Whiting	01-09-1

(4) The Self monitoring Progeam was rated marginal due to the Need for flow measurement on outfall 001.

(5) The sand Filters were bypassed by a portion of the wastewater flow on July 25 and 26, 2001. The bypass was Not reported to IDEM within 24 hours, or via written correspondence within 5 days

Inspected by:	Received by:	Date:

DISTRIBUTION: White - Public File; Canary - Site Copy; Pink - Inspector; Goldenrod - Supervisor

State Form 35969 (R3/10-97)

IDEM

NPDES Facility Inspection Report
Industrial Wastewater Facility

NPDES PERMIT #:	FACILITY:	CITY:	YR/MO/DAY:
IN 0000108	BP	Whiting	01-09-19+20

FACILITY DESCRIPTION: Petroleum refinery processing approximately 325,000 barrels per day of crude with maximum capacity of 410,000 barrels per day. July Data

Outfall	Water Use	Treatment	Avg Discharge/Flow	Appearance/Violations
001	All Process + Stormwater	See Below		9-19-01 Brown color 9-20-01 Light tan color *
002	Non-Contact Cooling	Oil water separator		Clear *
003	Stormwater	Oil water separator	No Discharge	No Discharge
004	Stormwater	None	No Discharge	No Discharge
	* There was NO visible oil sheen observed on Lake Michigan at the time of this inspection in the vicinity of outfall 001 or 002.			

	Process + Stormwater Treat.	S	M	U	(S - Satisfactory M - Marginal U - Unsatisfactory)
Treatment Systems	Bar screen + grit	X			
	API separators		X		6 of 24 separators out of service. One on line by 9-30-01
	Flow equalization	X			Two 10 Mg tanks; usually one on stand by for storm event.
	DAF	X			6 boxes for normal; one box used for recycle streams
	Activated sludge	X			(2) 5.7 Mg capacity aeration tanks; (2) clarifiers 5.7 Mg total volume capacity
	Sand filtration	X			8 gravity filters 10'x40'
Operations and maintenance		X			
O&M manual & maint records		X			
Preventative maintenance		X			
(5) Bypasses/Overflows			X		Sand filters bypassed by portion of flow on 12:01 pm 7-25-01
(3) Flow meter(s) and recorder(s)			X		001 - none 002 Annubar through 8:00 AM 7-26-01
Meter calibration(s)		X			Calibrated 4-26-01 outfall 002
Sample type, frequency, location		X			Need to indicate bottle type on 003 + 004 samples
TTO monitoring					Not required
Biomonitoring (whole eff toxicity)					Not required
Toxic Reduction Evaluation Plan					Not required
Sludge handling		X			Sludge thickener; sludge storage; incineration
Sludge disposal		X			Incinerator wet scrubber solids (ash) PDC, Peoria, IL
RCRA manifest records		X			See attached manifest.
Laboratory methods		X			
Quality control		X			Need to indicate UWL + UCL on duplicate + spike charts
Calibration of equipment		X			
~~Contract lab(s) used:~~ DMR QC/QA			+		Failed 0+6 test; see attached report + corrective action
DMR, MRO and records		X			
SPCC plan		X			Updated on July 6, 2001 See attached additional page.
Housekeeping		X			
Self-monitoring program			+		Not measuring the actual flow at outfall 001

NPDES Compliance	yes - except 3 TSS violations 200 + 2001 through July 2001, and flow measurement at outfall 001, and bypass reporting.
Notice of Violation NONE	
Agreed Order NONE	
Compliance Schedule N/A	
Properly certified operator	yes
Letter needed	No

Inspected by:	Received by:	Date:
Michael Koss	Natalie Grimmer	9-20-01

DISTRIBUTION: White - Public File; Canary - Site Copy; Pink - Inspector; Goldenrod - Supervisor

Photographs
BP Refinery, Whiting, Indiana
IDEM, Compliance Inspection 9-19-20-01

Photo #1 BP-Amoco Outfall 001 9-20-01

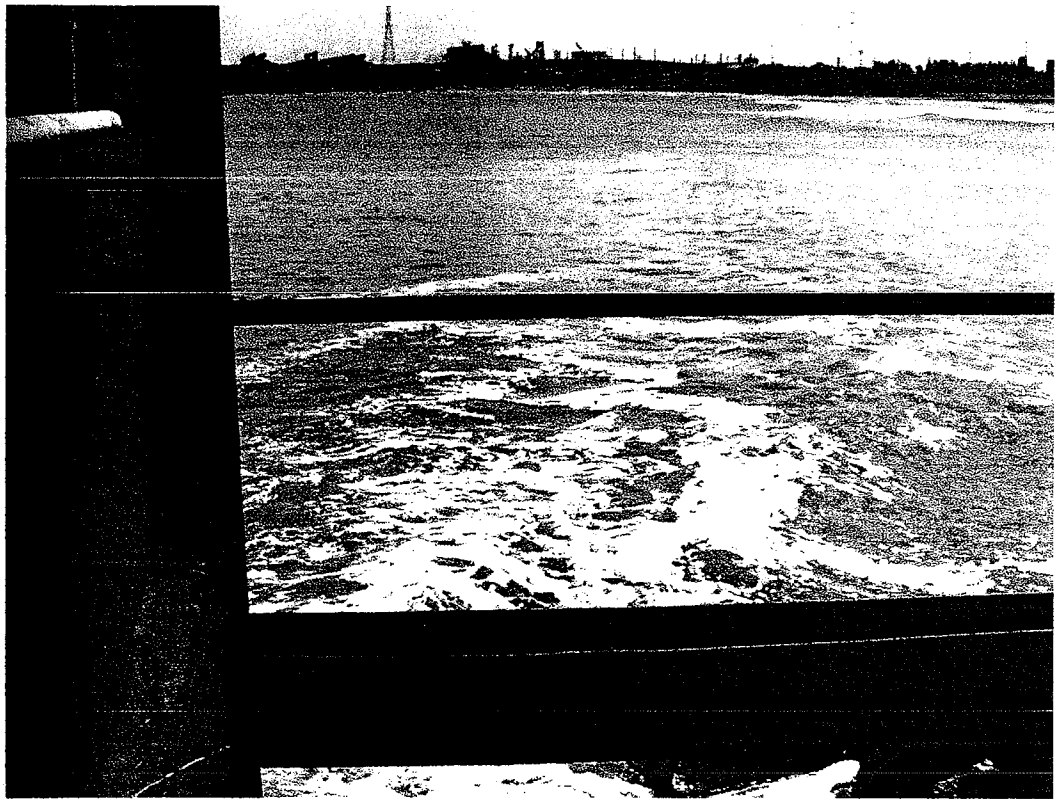

Photo #2 BP Amoco Outfall 001 9-20-01

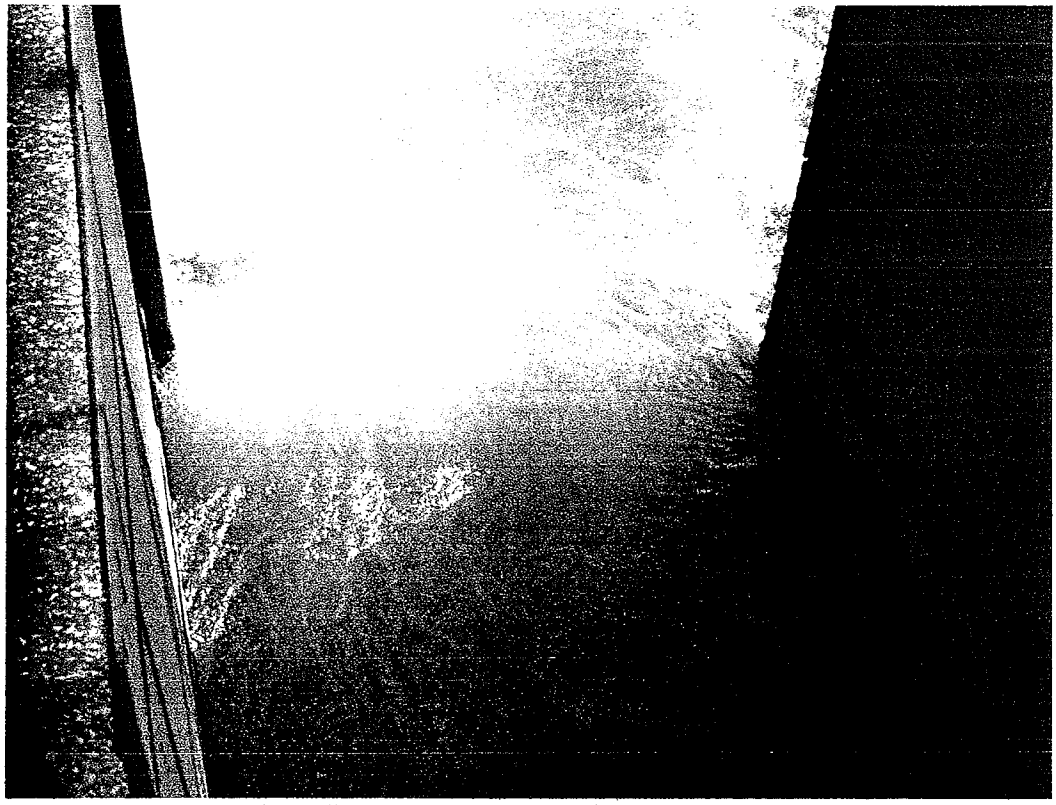

Photo #3 BP Amoco Outfall 002 9-20-01

Photo #4 BP Amoco Outfall 002 9-20-01

2000 SUMMARY OF NPDES PERMIT LIMIT VIOLATIONS

FACILITY BP

NPDES PERMIT No. IN0000108

E-mail Address: grimmenr@BP.com

2000

LIST OF NPDES PERMIT LIMIT VIOLATIONS

MONTH	DATE(S)		TYPE	OUTFALL	PARAMETER	REPORTED VALUE	PERMIT LIMIT	PERCENT DEVIATION
JAN								
FEB								
MAR								
APR	4-17		Dmx	001	TSS	6741 lb/d	5694 lb/d	
MAY								
JUNE								
JULY								
AUG								
SEPT								
OCT								
NOV								
DEC								
TOTAL NUMBER OF VIOLATIONS:				1				

DMx - Daily Maximum
DMn - Daily Minimum
MA - Monthly Average
WA - Weekly Average

Report Prepared by Michael Kuss Title Environmental Engr

2001 ~~2000~~ 2001

SUMMARY OF NPDES PERMIT LIMIT VIOLATIONS

FACILITY BP

NPDES PERMIT No. IN 0000108

E-mail Address:

2000

LIST OF NPDES PERMIT LIMIT VIOLATIONS

MONTH	DATE(S)		TYPE	OUTFALL	PARAMETER	REPORTED VALUE	PERMIT LIMIT	PERCENT DEVIATION
JAN								
FEB								
MAR								
APR								
MAY								
JUNE	6-14		*	002	Nitr-Ammonia	27 lbs	N/A	
	* This was a Reportable incident from outfall 002 There are NO Ammonia limitations for outfall 002.							
July	7-25		DMX	001	TSS	6335 lb/d	5694 lb/d	
	7-26		DMX	001	TSS	10,095 lb/d	5694 lb/d	
TOTAL NUMBER OF VIOLATIONS:								

DMx - Daily Maximum MA - Monthly Average
DMn - Daily Minimum WA - Weekly Average

Report Prepared by Michael Kuss Title Environmental Engr.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.state.in.us/idem

April 25, 2001

VIA CERTIFIED MAIL 7000 0520 002350502263

Mr. Stephen Simko
BP Amoco Oil
Health, Safety, & Environmental Division
2815 Indianapolis Blvd
Whiting, IN 46394-0710

Dear Mr. Simko:

Re: NPDES Permit No. IN0000108
BP Amoco Oil
Whiting, Indiana

The Indiana Department of Environmental Management needs the following information to update the NPDES permit renewal application for BP Amoco Oil and complete the mixing zone application submitted by BP Amoco Oil:

1. Please complete the enclosed EPA Form 2C. Note that analytical Method 1631 is to be used for mercury analysis. In addition, include analytical analysis for the concentration of chloride, total dissolved solids, vanadium, and free cyanide in the effluent discharge. BP Amoco Oil may want to include more that one data point for parameters that exhibit reasonable potential to exceed water quality standards in accordance with 327 IAC 5-2-11.5.

2. Please provide an estimated time line for the construction of the effluent diffuser.

3. Due to the age of the acute and chronic whole effluent toxicity test results, IDEM is requesting that BP Amoco submit updated acute and chronic whole effluent toxicity test results. Please provide three (3) consecutive months of test results for acute and chronic whole effluent toxicity tests using fathead minnow, ceriodaphnia, and algae.

RECEIVED
APR 30 2001
WHITING
ENVIRONMENTAL DEPT.

4. Please provide test results for ambient water toxicity testing. Conduct acute and chronic ambient water aquatic toxicity tests using fathead minnow, ceriodaphnia, algae and representative cold water sensitive species (i.e. *Salmo*, brook trout, etc.) and water collected from the following areas in Lake Michigan:

   - mixing zone
   - outside of the mixing zone
   - near drinking water intake points
   - pristine lake water as control

5. Please provide test results for the following genotoxic/mutagenic tests:

   Bacterial Tests
   - Ames Test
   - SOS Chromosome Test (Escherichia)

   Mammalian System Tests
   - Chinese Hamster Ovary Cells (CHO) Assay
   - Rat Hepatocyte Sister Chromatid Exchange (SCE) Assay

   Medaka Tumor Assay
   - Larval Fish Assay at No-Lethal Concentration
     (Perform Histopathology/Determine Tumor Frequency)

6. Please provide test results from In-Vitro Assays for systemic effects to determine if chemicals in the whole effluent have any adverse reactions such as:

   - suppression of immune system
   - specific organ toxicity
   - neurotoxicity and adverse reactions affecting development/reproduction

7. Please provide test results from biosurvey studies for aquatic life and determine any adverse impact on aquatic fauna. Compare BP Amoco discharge shore line area with Lake Michigan shore line area absent of nearby human impacts.

8. Please provide test results from bioaccumulation studies. Perform bioaccumulation studies of suspected toxic pollutants in BP Amoco's whole effluent on laboratory organisms and organisms collected in the BP Amoco discharge shore line area and Lake Michigan shore line area absent of nearby human impacts.

9. Please provide test results from sediment analysis studies. Perform sediment analysis studies collected from BP Amoco discharge shore line area and Lake Michigan pristine shore line area. Analyze sediments for suspected inorganic and organic pollutants.

Also, it should be noted that in accordance with 327 IAC 5-2-11.4(a)(9)(B) the highest monthly average flow from the previous two (2) years of monitoring shall be used to develop a wasteload allocation for BP Amoco. Pursuant to 327 IAC 5-2-11.6(g)(2), the effluent flow used to establish concentration-based water quality based effluent limitations will also be used to calculate mass loading rates.

If you have any questions regarding this letter please contact Christina Lowry at (317) 232-8707.

Sincerely,

Steven K. Roush

Steven K. Roush
Section Chief
Industrial NPDES Permits Section
Office of Water Quality

CTL/ctl
cc: Ms. Natalie Grimmer, BP Amoco
Mr. Fred Andes, Barnes and Thornburg
Ms. Robin Garibay, The Advent Group Inc.

bp

Whiting Business Unit

BP Amoco Corporation
2815 Indianapolis Blvd
PO Box 710
Whiting, IN 46394-0710

CERTIFIED MAIL - 7099 3400 0017 0185 1052
RETURN RECEIPT REQUESTED

August 22, 2001

Mr. Steve Roush
Section Chief
Industrial NPDES Permits Section
Office of Water Quality
Indiana Department of Environmental Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

BP Amoco Whiting NPDES Permit Renewal
Response to IDEM April 25, 2001 Letter and Summary of June 5, 2001 Meeting

BP Amoco appreciated the opportunity to meet with you and other IDEM staff on June 5, 2001 to discuss the refinery's NPDES permit renewal. Per discussions at the meeting and further review, BP Amoco submits the following responses to the April 25, 2001 IDEM letter regarding the information requested to update the refinery's NPDES permit renewal application. The response numbers correspond to those presented in the letter. Following the responses is a discussion of additional items discussed at our meeting on June 5, 2001.

1. BP Amoco will update Volume I of the 1994 Permit Renewal Application (PRA), which will include a resubmission of the IDEM General Form 1 with the list of potentially affected persons, an updated EPA Form 2C for Outfalls 001 and 002 and a submission of Form 2F for Outfalls 003 and 004. DMR data will be summarized for the past two years (Nov 99 – Nov 01). BP Amoco will use an effluent database beginning March 1998 for the reporting of beryllium and vanadium. New Form 2C and 2F analytical data will be collected in the 3rd and 4th quarter of 2001 and will also include chloride, total dissolved solids, vanadium, and free cyanide. Dissolved metals data will be reported as dictated by the results of RPE analyses. Recent regulatory changes will effect other information requirements and will cause additional revisions to Volume I of the 1994 PRA. Two new analytical methods will be incorporated into the Form 2C update: Method 1631 for mercury and Method 1664 for Oil and Grease. Background metals concentrations will be provided as well as receiving water hardness. Recent TRI database will guide the description of discharged constituents not covered by analyses. The level of detail for the WWTP description will be adjusted per new regulatory requirements as well as the necessary information for water treatment additives. The revised Volume I PRA will be submitted to IDEM by February 28, 2002.

2. BP Amoco will provide IDEM with an estimated timeline for the construction of the effluent diffuser as part of a partial update to Volume II (1994) and IIR (1997) of the PRA. Also included in this update will be additional CORMIX dispersion modeling using version 4 1GT with original and updated effluent flows. Results from CORMIX v4.1GT will be compared to the original modeling using CORMIX v3.2 and the mixing zone delineation will be modified accordingly. Finally, the revision to Volume II/IIR will include recent long-term

bioassessment data (from 1998 to current) to update Attachment 6 of Volume IIR. No further revisions to the mixing zone demonstration are planned. The revised Volume II/IIR PRA will be submitted to IDEM by February 28, 2002.

3. Per IDEM's request, BP Amoco will submit updated acute and chronic whole effluent toxicity test results for three months using fathead minnow, *Ceriodaphnia dubia*, and *Selenastrum capricornutum*. Also, acute WET results for a coldwater sensitive species (i.e., rainbow trout) using USEPA methods will be provided. Tests will be initiated by August 2001 and continue through September and then in November 2001. The refinery has a major crude unit shutdown scheduled in October 2001; thus, no testing will be done during that timeframe. These results will be incorporated into the Volume I PRA submission.

4. Per the June 5, 2001 meeting between IDEM and BP Amoco personnel, IDEM agrees that the need for additional data collection is not necessary. BP Amoco will conduct acute WET tests for a coldwater sensitive species using USEPA test methods. BP Amoco directs IDEM to the results of in-lake bioassay tests using *Selenastrum capricornutum and Scenedesmus quadricauda* summarized in Volume II pages A5-3-20 to A5-3-25.

5. Per the June 5, 2001 meeting between IDEM and BP Amoco personnel, IDEM agrees that the need for additional data collection is not necessary. BP Amoco will reference existing information as appropriate such as the use of USEPA (40 CFR 136) methods that achieve low detection levels to analyze the treated effluent, the absence of BCCs in the treated effluent, water quality criteria implement procedures that consider additivity, and the RPE process as applied to Tier I human health criteria and Tier II human health values.

6. Per the June 5, 2001 meeting between IDEM and BP Amoco personnel, IDEM agrees that the need for additional data collection is not necessary. BP Amoco will reference existing information as appropriate such as the use of USEPA (40 CFR 136) methods that achieve low detection levels to analyze the treated effluent, the absence of BCCs in the treated effluent, water quality criteria implement procedures that consider additivity, and the RPE process as applied to Tier I human health criteria and Tier II human health.

7. Per the June 5, 2001 meeting between IDEM and BP Amoco personnel, IDEM agrees that the need for additional data collection is not necessary. BP Amoco will reference existing information as appropriate, which includes Volume II Attachment 5 (1994 biosurvey data), Volume IIR Attachment 6 (1995 to 1997 biosurvey data) and the biological summary and references and bibliography for the southern nearshore area of Lake Michigan provided in Volume II/IIR. BP Amoco will submit, as a supplement to Volume II/IIR, the 1998 to 2000 biosurvey data.

8. Per the June 5, 2001 meeting between IDEM and BP Amoco personnel, IDEM agrees that the need for additional data collection is not necessary. BP Amoco will reference existing information as appropriate such as the use of USEPA (40 CFR 136) methods that achieve low detection levels to analyze the treated effluent, the absence of BCCs in the treated effluent, water quality criteria implement procedures that consider additivity, and the RPE process as applied to Tier I human health criteria and Tier II human health.

9. Per the June 5, 2001 meeting between IDEM and BP Amoco personnel, IDEM agrees that the need for additional data collection is not necessary. BP Amoco provides as an attachment to this letter a summary of the sediment characteristics in the area of the proposed diffuser location. These data are found in Volume II, IIR, and the to- be-updated Volume II/IIR. BP Amoco believes that the sediments in this area of Lake Michigan have very little metal binding capacity or organic adsorption capacity due to the dominance of sand (80 percent), the low TOC levels, and the consistent disturbance of the surface sediments.

Additional Items Discussed at June 5, 2001 Meeting:

A discussion was held regarding any other issues that would impact BP Amoco's permit renewal application. IDEM stated that they had no other issues other than the ones identified in their letter dated April 25, 2001.

BP Amoco discussed the refinery's future plans, including potentially building additional process units (which would manufacture chemical feedstocks) and a second Cogeneration facility. BP Amoco expressed a desire to be able to incorporate these types of projects into the refinery's permit renewal. When found viable, the refinery would like to move forward with its project plans as part of the renewed permit. Ideas such as a tiered permit approach were discussed. IDEM suggested that BP Amoco provide them with as much information about these projects as possible during the permit renewal process.

If you have any questions regarding our responses, please contact Natalie Grimmer at (219) 473-5417.

Sincerely,

Stephen D. Simko
Environmental Superintendent, HSE

Attachments

Notes on Lake Michigan sediment Total Organic Carbon (TOC) analyses

Three methods have been used to assess TOC in sediment collected from the C3501 and S3500 Lake Michigan sample locations. Methods include a modified surfaced water protocol (Method 9060 Modified) that analyzed leachate from the sediment material and results are expressed in mg carbon per kg sample (mg/kg). Two protocols were based on combustion of sediment material. ASTM Method D4129 which determines total carbon and inorganic carbon constituents directly then total organic carbon is determined by difference and expressed as mg/kg. Method ASA 9.29-2.2.4 determines total organic carbon directly and results are reported as percent carbon of total sample (%). Analytical results for sediments collected from the study sites are presented in Table A.

TOC values determined by Method 9060 Modified ranged from 1,700 to 11,000 mg/kg. When expressed as a percent, these results showed a range of 0.2-1.1% TOC.

TOC values determine by ASTM Method D4129 ranged from 480 to 32,000 mg/kg. When expressed as a percent these results show a range of 0.48-3.2% TOC.

TOC values determined by ASA 9.29-2.2.4 indicated less than 1 percent (0.36-0.47%) organic carbon for all sediment analyzed.

Confidence in the results from Method 9060 Modified were low because the method was originally a surface water protocol and a leachate was used for analysis rather than the sediment material itself. Ultimately, the results from Method 9060 are within the TOC concentrations determined from ASTM Method D4129 and ASA 9.29-2.2.4 for other samples collected from the study locations.

The ASTM Method D4129 and ASA 9.29-2.2.4 show a similar range in concentration for results expressed as percent TOC. With the exception of one sample from C3501 of 3.2% TOC (32,000 mg/kg) the sediment material from C3501 and S3500 exhibit TOC values less than 1%.

Sediment composition (dominance of sand), amount of carbon present, and mass of material used for the analyses can contributes to less precision and accuracy for ASTM Method D4129. Method D4129 uses 0.1 gram of material for analyses compared to 1.0 gram of material for ASA 9.29-2.2.4. In addition, analyses for samples with low carbon content that also contain large grain size (e.g. sand) perform poorly with Method D4129 because of low sample volume. Sediment composition for the study sites is 80 percent sand, 17 percent silt, and 3 percent clay (see Table 2). Results from Method ASA 9,29-2.2.4 are believed to be more accurate for the matrix tested due to the larger sample size analyzed. This view is supported by the analytical laboratory performing the analyses.

Results indicate that TOC content for the sand dominated sediment material at the S3500 and C3501 Lake Michigan study sites is generally less than 1 percent. This low level of TOC is consistent with other Lake Michigan TOC results[1]

[1] Leonard, EN, GT Ankley, RA Hoke. "Evaluation of Metals in Marine and Freshwater Surficial Sediments from the Environmental Monitoring and Assessment Program Relative to Proposed Sediment Quality Criteria for Metals". *Environ. Toxicol. Chem: 15:2221-2231.* 1996.

TABLE 1. NEARSHORE LAKE MICHIGAN SEDIMENT RESULTS
BP AMOCO WHITING

DATE	SITE		TOC	UNITS	METHODS	% SOLIDS	METHODS
8/12/1998	C3501	Rep 1	11000	mg/kg	9060 Modified	1 b	calculation
8/12/1998	C3501	Rep 1	1300	mg/kg	9060 Modified	0.1 b	calculation
8/12/1998	S3500	Rep 1	1700	mg/kg	9060 Modified	0.2 b	calculation
8/12/1999	C3501	Rep 1	32000	mg/kg	ASTM-D 4129-88	71.3	CLPSOW390, Part F, D-98
8/12/1999		Rep 1	3.2	%	calculated		
8/12/1999		Rep 1a	0.41	%	ASA No. 9 29-2.2.4 combustion/IR	75.4	CLPSOW390, Part F, D-98
8/12/1999		Rep 3	0.47	%	ASA No. 9 29-2.2.4 combustion/IR	74.7	CLPSOW390, Part F, D-98
8/12/1999	S3500	Rep 1	480	mg/kg	ASTM-D 4129-88	78.8	CLPSOW390, Part F, D-98
8/12/1999		Rep 1	0.05	%	calculated		
8/12/1999		Rep 2	0.36	%	ASA No. 9 29-2.2.4 combustion/IR	79	CLPSOW390, Part F, D-98
8/12/2000	C3501	Rep 1	0.38	%	ASA No. 9 29-2.2.4 combustion/IR	72.2	CLPSOW390, Part F, D-98
8/12/2000		Rep 2	0.29	%	ASA No. 9 29-2.2.4 combustion/IR	74.8	CLPSOW390, Part F, D-98
8/12/2000		Rep 3	0.25	%	ASA No. 9 29-2.2.4 combustion/IR	74.2	CLPSOW390, Part F, D-98
8/12/2000	S3500	Rep 1	0.25	%	ASA No. 9 29-2.2.4 combustion/IR	80.7	CLPSOW390, Part F, D-98
8/12/2000		Rep 2	0.44	%	ASA No. 9 29-2.2.4 combustion/IR	72.7	CLPSOW390, Part F, D-98
8/12/2000		Rep 3	0.22	%	ASA No. 9 29-2.2.4 combustion/IR	80.7	CLPSOW390, Part F, D-98

a Sample C3501 Rep. 1 re-analyzed September 30, 1998.
b Values shows are %TOC and not %Solids.

bp

Whiting Business Unit

BP Amoco Corporation
2815 Indianapolis Blvd.
PO Box 710
Whiting, IN 46394-0710

July 6, 2001

MANAGEMENT APPROVAL OF SPCC PLAN

Our attached, updated Spill Prevention Control and Countermeasure Plan meets with my approval and has my support. It will be implemented as necessary for the Whiting Business Unit.

Ashok K. Jhawar

Ashok Jhawar
Leader
Whiting Business Unit

Jackie Getzelman

Jackie Getzelman
Facility Manager
Whiting C Station Terminal

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (21 -6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12 pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: IND000810861
Manifest Document No.: 99341
2. Page 1 of 1
Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Amoco Oil Co.-Lakefront WWTP, 2815 Indianapolis Blvd., Whiting, IN 46394
Location If Different: N.E. of 119th & Front Streets, Whiting, IN 46394 (Return to: MANIFEST-122)

A. Illinois Manifest Document Number: IL 8701490 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 1 9 1 1 1 8 1 0 1 8 1 9 1 0 1 0 1 2 1 1

4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS: (219) 473-3361**

C. Transporter's ID Number: UPM-0762748-IL

5. Transporter 1 Company Name: Chemical Disposal Services, Inc.
6. US EPA ID Number: ILR000066662

D. Transporter's Phone: (219) 473-2956

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. Transporter's ID Number:

9. Designated Facility Name and Site Address: Peoria Disposal Company, 4349 Southport Road, Peoria, IL 61615
10. US EPA ID Number: ILD000805812

F. Transporter's Phone ( )

G. Facility's IL ID Number: 1 1 4 1 3 1 8 1 1 1 2 1 0 1 0 1 0 1 3

H. Facility's Phone: (309) 676-4693

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, Hazardous Waste, Solid, N.O.S., 9, NA3077, III (F037,F038,K048,K049,K050,K051,D010)	001	DT	00018	Y	EPA HW Number *F037 0003900
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Ia. Profile #15049; Incinerator Wet Scrubber Solids
*F037,F038,K048,K049,K050,K051,D010
Permit No. 932361-15049
TRAILER #1221

K. Handling Codes for Wastes Listed Above In Item #14: Y

15. Special Handling Instructions and Additional Information
**24-hour emergency response telephone number: (219) 473-3361 (Gate 36); ask to contact "on-call environmental support." See attached NA emergency response guide #171.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR — Printed/Typed Name: WILLIAM SNYDER — Signature: [signature] — Date (Month Day Year): 09 04 01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials — Printed/Typed Name: CHARLES GRAY — Signature: Charles Gray — Date (Month Day Year): 09 04 01

18. Transporter 2 Acknowledgement of Receipt of Materials — Printed/Typed Name: — Signature: — Date (Month Day Year):

FACILITY

19. Discrepancy Indication Space: Waste Does not conform to permit characteristics, contacted Generator and sent to stabilization for solidification. SAH 9-4-01

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. — Printed/Typed Name: Steve Hartseil — Signature: [signature] — Date (Month Day Year): 09 04 01

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

Peoria Disposal Company

CERTIFICATE OF DISPOSAL

FACILITY NAME: Peoria Disposal Company # 1
ADDRESS: 4349 Southport Road
Peoria, Illinois 61615
(309) 676-4893

USEPA/ IEPA ID: ILD000805812/ 1438120003

GENERATOR: Amoco Oil Company
Whiting, Indiana

Peoria Disposal Company hereby certifies the receipt of waste material from Amoco Oil Co. described on Illinois Hazardous Waste Manifest Number 870490, received on 09-04-01. This material was disposed in compliance with State of Illinois and Federal Regulations. Method of Disposal is landfill in a RCRA Subtitle C Facility.

By: Dara L. Reader

Date: 09-07-01

Mail To: Amoco Oil Company
2815 Indianapolis Blvd.
Whiting, IN 46393

Permit # 932361

P.O. Box 9071
Peoria, IL 61612-9071
(309) 688-0760

100% recycled paper

4700 N. Sterling Ave.
Peoria, IL 61615-3647
Fax: (309) 688-0881

Peoria Disposal Company

Land Disposal Restriction Notification & Certification Form

Generator Name: Amoco Oil Company **WMDS#:** 15049

EPA Hazardous Waste #(s): F037, F038, K048, K049, K050, K051, D010 **Manifest #:** IL 870/490

This waste is a: (check one): __ Wastewater
X Nonwastewater

Management Codes:

Each Waste # listed below will be identified with a reference code representing the appropriate method of management. The Management Codes and corresponding certification statements, if applicable, are as follows:

A **Restricted Waste Requires Treatment:**
This waste must be treated to the applicable treatment standards set forth in 40 CFR Part 268, Subpart D, 268.32 or RCRA Section 3004(d).

B **Restricted Waste Can Be Land Disposed Without Further Treatment:**
I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR 268, Subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

C **Restricted Waste Treated to Performance Standards:**
I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR Part 268 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

D **Waste Which Is Subject to an Exemption from the Land Disposal Restrictions such as, but not limited to a Case-by-Case Extension under 268.5, an Exemption under 268.6, or a National Capacity Variance under Sub-Part C of 40 CFR Part 268:** I certify that this waste is not prohibited from land disposal.

Date the waste is subject to the prohibition: _____

E **This hazardous debris is subject to the alternative treatment standards of 40 CFR 268.45.**

Hazardous Waste #	Subcategory, if applicable	Management Code(s)
F037		B
F038		B
K048		B
K049		B
K050		B
K051		B
D010		B

Date of characterization analysis: 7/30/99 (attach most recent copy with the first load)

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge.

Signature: Steve Warzyniak Title: Engineer

Name: STEVE WARZYNIAK Date: 8-10-01

ldrnotif.doc

Amoco Petroleum Products
Whiting Refinery

EMERGENCY RESPONSE GUIDE 171

RQ, Hazardous Waste Solid N.O.S., 9, NA3077, III, (F037, F038, K048, K049, K050, K051)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Some may burn but none ignite readily.
- Some may polymerize **(P)** explosively when heated or involved in a fire.
- Containers may explode when heated.
- Some may be transported hot.

HEALTH

- Inhalation of material may be harmful.
- Contact may cause burns to skin and eyes.
- Inhalation of Asbestos dust may have a damaging effect on the lungs.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, call CHEMTREC at 1-800-424-9300.**
- Isolate spill or leak area immediately for at least 10 to 25 meters (30 to 80 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Do not scatter spilled material with high pressure water streams.
- Dike fire-control water for later disposal.

Fire Involving Tanks

- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank
- ALWAYS stay away from the ends of tanks.

ENVIRONMENTAL RESOURCE ASSOCIATES®

ERA Study: **DMRQA 20**

Permitee Name:

BP AMOCO OIL

NPDES Permit Number: **IN0000108**

Report Prepared by:
Environmental Resource Associates
Arvada, Colorado

November 27, 2000

REGISTERED QUALITY SYSTEM ISO 9001

QUALITY CONTROL STANDARDS / PROFICIENCY TESTING STUDIES

NVLAP lab code: 200386-0

5540 Marshall St., Arvada, CO 80002 1-800-372-0122 fax 303-421-0159 info@eraqc.com www.eraqc.com