#### NO. D-1-GV-09-000921

STATE OF TEXAS,	§	THE DISTRICT COURT OF
Plaintiff	§	
	§	
	§	
<b>v.</b>	§	TRAVIS COUNTY, TEXAS
	§	
BP PRODUCTS NORTH AMERICA	§	
INC.,	§	
Defendant	§.	201ST JUDICIAL DISTRICT

## PLAINTIFF'S FIRST AMENDED ORIGINAL PETITION AND APPLICATION FOR TEMPORARY AND PERMANENT INJUNCTIONS

The State of Texas files this Original Petition and Application for Temporary and Permanent Injunctions. This suit seeks civil penalties, injunctive relief, and attorney's fees for violations of environmental laws at a facility owned and operated by BP Products North America Inc. in Texas City, Texas.

#### 1. DISCOVERY

1.1 The State of Texas will conduct discovery under a Level 3 Discovery Control Plan. Tex. R. Civ. P. 190.

#### 2. PARTIES

2.1 Plaintiff is the State of Texas (State). The Attorney General of Texas, at the request of the Texas Commission on Environmental Quality (TCEQ), is authorized to file suit in the name of the State for injunctive relief and civil penalties for violations of the Texas Clean Air Act, Tex. Health & Safety Code Chapter 382 (TCAA); Chapter 7 of the Texas Water Code; and TCEQ rules and orders promulgated under these statutes. Tex. Water Code Ann. § 7.105(a).

2.2 Defendant BP Products North America Inc. (BP) is a foreign for-profit corporation. On June 15, 2009, BP was served with process by serving its registered agent, Prentice Hall Corporation System, 701 Brazos Street, Suite 1050, Austin, Texas 78701.

#### 3. JURISDICTION AND VENUE

3.1 This Court has jurisdiction and venue is proper in Travis County, Texas because this is an action to recover civil penalties and injunctive relief for violations of statutes, rules, orders, and permits within the TCEQ's jurisdiction. Tex. Water Code Ann. § 7.105(c).

#### 4. APPLICABLE LAW

- 4.1 "Except as authorized by a [TCEQ] rule or order, a person may not cause, suffer, allow, or permit the emission of any air contaminant or the performance of any activity that causes or contributes to, or that will cause or contribute to, air pollution." TCAA § 382.085(a).
- 4.2 "A person may not cause, suffer, allow, or permit the emission of any air contaminant or the performance of any activity in violation of this chapter or of any commission rule or order." TCAA § 382.085(b).

#### A. Emissions Events

4.3 An "Emissions Event" is an unauthorized emission of air contaminants from one or more emission points resulting from an upset event, unscheduled maintenance, startup, or shutdown activity. 30 Tex. Admin. Code (TAC) § 101.1(28).

- 4.4 A "Reportable Emissions Event" is an Emissions Event that within any 24 hour period emits unauthorized emissions from any emissions point equal to or greater than a specified reportable quantity. 30 TAC § 101.1(87). The reportable quantity generally varies based on the type of air contaminant. 30 TAC § 101.1(88).
- 4.5 Within 24 hours of a Reportable Emissions Event, the owner or operator of a regulated facility must notify the TCEQ of the event. 30 TAC § 101.201(a)(1)(B).
- 4.6 The owner or operator of a facility experiencing an Emissions Event must create a final report of the event as "soon as practicable, but no later than two weeks after the end" of the Emissions Event. 30 TAC § 101.201(b). Among other things, the final report of a reportable Emissions Event shall:
  - A. identify, for all emission points involved in the Emissions Event, a list of all of the compounds released, 30 TAC § 101.201(b)(1)(G);
  - B. identify the authorization number or permit for the emissions, 30 TAC § 101.201(b)(1)(H); and
  - C. for each of the contaminants released, list the estimated total amount released for each of the compounds or mixtures of compounds, 30 TAC § 101.201(b)(1)(H).
- 4.7 Within sixty days of a request from the TCEQ, the owner or operator of a facility experiencing an Emissions Event must submit to the TCEQ a written technical evaluation of the Emissions Event. 30 TAC § 101.201(f). The owner or operator of the facility must also provide a written response to any request from the TCEQ for additional

information regarding the Emissions Event within the time frame specified in the request.

Id.

#### B. Excessive Emissions Events

- 4.8 The TCEQ reviews Emissions Events to determine if the event was excessive. 30 TAC § 101.222(a). An "Excessive Emissions Event" determination reviews the following: "(1) the frequency of the facility's emissions events; (2) the cause of the emissions event; (3) the quantity and impact on human health or the environment of the emissions event; (4) the duration of the emissions event; (5) the percentage of a facility's total annual operating hours during which emissions events occur; and (6) the need for startup, shutdown and maintenance activities." *Id*.
- 4.9 When the TCEQ determines that an Emissions Event is excessive, the owner or operator of a facility must take action to reduce emissions by filing either a Corrective Action Plan (CAP) or a letter of intent to seek authorization for the emissions. 30 TAC § 101.223(a). When a CAP is appropriate, the facility owner or operator must submit the CAP to the TCEQ within 60 days of receiving the notification from the TCEQ that the event is considered excessive. 30 TAC § 101.223(a)(1).

### C. Sampling

4.10 Upon request of the TCEQ, a source emitting air contaminants shall conduct sampling to determine the "opacity, rate, composition, and/or concentration of such emissions." 30 TAC § 101.8.

#### D. Civil Enforcement

- 4.11 Any person "who causes, suffers, allows, or permits a violation of a statute, rule, order, or permit relating to any other matter within the [TCEQ's] jurisdiction . . . shall be assessed for each violation a civil penalty not less than \$50 nor greater than \$25,000 for each day of each violation as the court or jury considers proper. Each day of a continuing violation is a separate violation." Tex. Water Code Ann. § 7.102.
- 4.12 The Attorney General, at the request of the Commission, is authorized to file suit in the name of the State for injunctive relief and civil penalties for violations of the Health and Safety Code, the Texas Water Code, and Commission rules, permits, and orders promulgated thereunder. Tex. Water Code §§ 7.105(a), 7.032(b).
- 4.13 The Attorney General may seek an injunction to restrain a violation or threat of violation of a Commission rule, order, or permit when it appears that "a violation or threat of violation of a statute within the [C]ommission's jurisdiction or a rule adopted or an order or a permit issued under such a statute has occurred or is about to occur." Tex. Water Code § 7.032(b). "[T]he court may grant . . . any prohibitory or mandatory injunction the facts may warrant, including a temporary restraining order and, after notice and hearing, a temporary injunction or permanent injunction." Tex. Water Code § 7.032(d).
- 4.14 The State is not required to pay a filing fee or other security for costs and is not required to pay a bond prior to the Court granting an injunction. Tex. Civ. Prac. & Rem. Code § 6.001; Tex. Water Code Ann. § 7.032(d).

4.15 If the State prevails, it is entitled to recover its reasonable attorney's fees, court costs, and investigative costs. Tex. Water Code § 7.108.

#### 5. GENERAL BACKGROUND

- 5.1 BP operates a petroleum refinery at 2401 5<sup>th</sup> Avenue South, Texas City, Texas (the Refinery). It is BP's largest refinery with a feed capacity of approximately 460,000 barrels of crude oil per day. The Refinery's process units produce a wide range of petroleum products, including gasoline, distillates, heavy fuel oil, sulfuric acid, petroleum coke, and petrochemical feedstocks.
- 5.2 The Refinery emits air contaminants consisting primarily of volatile organic compounds (VOCs), hydrogen sulfide (H<sub>2</sub>S), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), and sulfur dioxide (SO<sub>2</sub>).

### A. <u>BP's Air Permits</u>

- 5.3 TCEQ Air Flexible Permit No. 47256 (Permit 47256) regulates air emissions from the normal operation and startup, shut down, and maintenance of most of the Refinery's process units. Special Condition No. 1 of Permit 47256 prohibits (1) emissions of air contaminants from normal operations and startup, shut down, and maintenance in excess of the limits on the Emissions Caps and Individual Emissions Limitations Table in the permit and (2) emissions of any amount of air contaminants resulting from Emissions Events.
- 5.4 TCEQ Air Permit 3170 (Permit 3170) regulated air emissions from the Refinery's Isomerization Unit until July 13, 2005. Permit 3170 prohibited emissions of air

contaminants from a portion of the Isomerization Unit except for emissions from the emission points and amounts listed in the Maximum Allowable Emission Rate Table attached to the permit.

- 5.5 Several of the emissions at issue in this suit involve Fluid Catalytic Cracker Units (FCCUs). Special Condition No. 38 of Permit 47256 prohibits emissions from the FCCUs from exceeding twenty percent opacity averaged over a six-minute period.
- 5.6 TCEQ Air Permit 2231 (Permit 2231) prohibits the emission of air contaminants from certain tanks in the Refinery's tank farm in excess of the amounts listed in the Maximum Allowable Emission Rate Table attached to the permit.
- 5.7 TCEQ Air Permit 2612 (Permit 2612) prohibits the emission of air contaminants from certain emission points in Aromatics Unit No. 2 in excess of the amounts listed in the Maximum Allowable Emission Rate Table attached to the permit.

#### B. Past TCEQ Administrative Enforcement

5.8 The recent historical record at the BP Refinery reveals a pattern of unnecessary and unlawful Emissions Events. BP's poor operation and maintenance of the Refinery are the primary underlying cause of these Emissions Events. Between 2000 and 2007 alone, the TCEQ entered fifteen enforcement orders against BP for violations related to at least thirty-nine Emissions Events at the Refinery. In addition to a history of repeated

<sup>&</sup>lt;sup>1</sup>See TCEQ Orders in Docket Nos. 1999-0068-AIR-E, 1999-1278-AIR-E, 2001-0329-AIR-E, 2004-1532-AIR-E, 2005-0284-AIR-E, 2005-0818-AIR-E, 2005-0706-AIR-E, 2005-0224-AIR-E, 2005-1027-AIR-E, 2006-0196-AIR-E, 2006-0262-AIR-E, 2006-0310-AIR-E, 2006-0400-AIR-E, 2006-0099-AIR-E, 2005-1839-AIR-E.

violations of the law related to unauthorized air emissions, many of these orders show a pattern of failure to properly report Emissions Events to the TCEQ.

- 5.9 On May 31, 2006, the TCEQ entered an agreed enforcement order against BP in TCEQ Docket No. 2005-0224-AIR-E (the "2006 Order"). The 2006 Order is final and unappealable. Among other provisions, Ordering Provision 4.a.ii of the 2006 Order requires BP to submit a Flaring Root Cause Report to the TCEQ for Flaring Events involving certain listed combustion devices that released over 500 pounds of SO<sub>2</sub> in a period of 24 hours. The 2006 Order requires the Flaring Root Cause Reports to include a description of the root cause of the Flaring Event, all significant contributing causes of the Flaring Event, and an analysis of available measures to reduce the likelihood of a future event resulting from the same root cause or contributing cause. The 2006 Order requires BP to submit these Flaring Root Cause Reports within 30 days of a qualifying Flaring Event. In Ordering Provision 2 of the 2006 Order, BP agreed to a stipulated penalty of \$10,000 per day for each day that BP exceeded a deadline in Ordering Provision No. 4.
- 5.10 These administrative orders show that BP's poor operating and maintenance practices have resulted in an egregious amount of Emissions Events in the past few years. These events continue unabated to the present.

### 6. CLAIM NO. 1: CIVIL PENALTIES FOR EXCESSIVE EMISSIONS EVENT ON MARCH 23, 2005, THE ISOMERIZATION UNIT EXPLOSION

#### A. Emissions from ISOM Unit

- 6.1 According to reports BP submitted to the TCEQ, on March 23, 2005, an explosion occurred in the Refinery's Isomerization (ISOM) unit killing fifteen and injuring over 170 workers. BP reported that the explosion occurred when plant personnel were restarting the ISOM unit's Raffinate Splitter. During this startup, BP over-filled and over-heated the Raffinate Splitter. To relieve pressure on the Raffinate Splitter, overhead relief valves opened and fed liquid and vapor hydrocarbons to the ISOM unit's F-20 Blowdown Drum. Vapor and liquid flowed out of the F-20 Blowdown Drum and eventually ignited. After the explosion, BP reported that emissions from the ISOM Unit continued from a bleeder valve on the Unit.
- 6.2 BP admitted to releasing air contaminants from the ISOM Unit as a result of the explosion for 164 hours and 40 minutes, including the following:

Air Contaminant	Quantity in lbs.
benzene	1.00
СО	336.00
NO <sub>x</sub>	45.00
VOCs	30,236.00

6.3 In TCEQ investigation No. 394338, the TCEQ determined that the event was avoidable as it resulted from poor operation practices. The TCEQ also determined that this was an Excessive Emissions Event because, among other factors, the event was avoidable,

caused by poor operation practices, and impacted human health. The TCEQ received a CAP from BP on November 22, 2005; the TCEQ approved the CAP on May 31, 2006.

6.4 BP violated TCAA § 382.085 and Permit 3170 by emitting the air contaminants listed in paragraph 6.2 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 6.2.

#### B. Emissions from Tank 108

- 6.5 BP also admitted to additional emissions resulting from the March 23, 2005, explosion in the ISOM Unit, which damaged the floating roof on Tank 108 and caused benzene in the tank to accumulate on the roof and vaporize. BP admitted that Tank 108 emitted a total of 2,752 pounds of benzene over a 672-hour period. Permit 2231 limits emissions of VOCs, which include benzene, from Tank 108 to 0.34 pounds per hour. In TCEQ investigation No. 399764 the TCEQ determined that the event was avoidable as it resulted from poor operation practices.
- 6.6 BP violated TCAA § 382.085 and Permit 2231 by exceeding the permit limit for emissions of benzene. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each violation for the unauthorized release of benzene from Tank 108.

# 7. CLAIM NO. 2: CIVIL PENALTIES FOR EXCESSIVE EMISSIONS EVENT ON JULY 28-29, 2005, IN THE RESID HYDROTREATING UNIT

7.1 According to reports BP submitted to the TCEQ, on July 28, 2005, an elbow joint failed in the high pressure hydrogen exchanger in the Resid Hydrotreating Unit (RHU), resulting in an explosion, fire, and the release of air contaminants from the RHU and the CRPII Flare. BP admitted to the release of air contaminants to the atmosphere for 14 hours, including the following:

Air Contaminant	RHU Fugitives Quantity in lbs.	CRPII Flare Quantity in lbs.
СО	2,308.00	2,615.00
NO <sub>x</sub>	252.00	276.00
SO <sub>2</sub>	13,840.00	26,556.00
$H_2S$	1,755.00	0.00
VOCs	36,759.00	4,416.00
Residual Oil	11,250.00	0.00

7.2 In TCEQ investigation No. 457489, the TCEQ determined that an elbow on the outlet of a high pressure hydrogen exchanger catastrophically failed. BP reported that it installed the failed carbon steel elbow where a 1.25 percent chrome elbow had been specified, resulting in a high temperature hydrogen attack on the carbon steel elbow and its subsequent failure. The TCEQ determined that the event could have been avoided by good operation practices. The TCEQ also determined that this was an Excessive Emissions Event citing among other factors the duration of the event, its impact on human health, and

that the event was avoidable. The TCEQ received a CAP from BP for this event on April 4, 2008. The TCEQ approved the CAP on May 21, 2008.

7.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 7.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 7.1.

# 8. CLAIM NO. 3: CIVIL PENALTIES FOR EXCESSIVE EMISSIONS EVENT ON JULY 29, 2005, IN THE SULFUR RECOVERY UNIT

8.1 According to reports BP submitted to the TCEQ, on July 29, 2005, a pressure controller failed to close on the Sulfur Recovery Unit (SRU), resulting in acid gas being routed to a flare instead of being routed to the sulfur trains for processing. BP admitted to the release of air contaminants to the atmosphere for 1 hour and 37 minutes, including the following:

Air Contaminant	Quantity in lbs.
СО	1.00
$NO_x$	25.00
$SO_2$	142,834.00
$H_2S$	1,518.00

8.2 In TCEQ investigation No. 467312, the TCEQ determined that BP failed to prevent a pressure controller malfunction at the SRU, resulting in acid gas flaring. The TCEQ determined that the event could have been avoided by good operation practices. The TCEQ also determined that this was an Excessive Emissions Event citing among other

factors the duration of the event, its impact on human health, and that the event was avoidable. The TCEQ received a CAP from BP for this event on August 22, 2007. The TCEQ approved the CAP on October 24, 2007.

8.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 8.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 8.1.

# 9. CLAIM NO. 4: CIVIL PENALTIES FOR EMISSIONS EVENT ON JULY 23-24, 2006, IN PIPESTILL 3A

9.1 According to reports BP submitted to the TCEQ, on July 23, 2006, a power failure at the Pipestill 3A Compressor resulted in materials being released to Flare No. 1. BP admitted to the release of air contaminants to the atmosphere for 13 hours and 25 minutes, including the following:

Air Contaminant	Quantity in lbs.
СО	506.00
NO <sub>x</sub>	47.20
$SO_2$	4,681.00
VOCs	758.00

9.2 In TCEQ investigation No. 517101, the TCEQ determined that a lightning strike caused the power failure at the Pipestill 3A Compressor, which resulted in the flaring of materials to Flare No. 1. On September 19, 2006, the TCEQ requested additional information from BP about the event. The TCEQ requested the information be submitted

on or before September 29, 2006. BP submitted the requested documentation to the TCEQ on October 2, 2008.

- 9.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 9.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 9.1.
- 9.4 BP also violated 30 TAC § 101.201(f) by failing to provide requested information regarding the Emissions Event within the time set forth in the request. BP continuously violated 30 TAC § 101.201(f) from September 29, 2006, to October 1, 2008. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(f).

# 10. CLAIM NO. 5: CIVIL PENALTIES FOR EMISSIONS EVENT ON SEPTEMBER 1-2, 2006, AT THE REFINERY GRADE PROPYLENE PIPELINE

10.1 According to reports BP submitted to the TCEQ, on September 1, 2006, a pipeline company damaged the Refinery Grade Propylene (RGP) Pipeline, which caused the RGP to flow to Flare No. 3. BP admitted to the release of air contaminants to the atmosphere for 13 hours and 36 minutes, including the following:

Air Contaminant	Quantity in lbs.
СО	3,327.00
NO <sub>x</sub>	653.00
SO <sub>2</sub>	12.00
VOCs	4,128.30

- 10.2 In TCEQ investigation No. 534109, the TCEQ determined that a pipeline company vehicle damaged the RGP Pipeline, which caused the RGP to divert to the fuel gas system and then to Flare No. 3. On December 1, 2006, the TCEQ requested additional information from BP about the event. The TCEQ requested the information be submitted on or before December 8, 2006. To date, BP has not submitted the requested information.
- 10.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 10.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 10.1.
- 10.4 BP also violated 30 TAC § 101.201(f) by failing to provide requested information regarding the Emissions Event within the time set forth in the request. BP has been in continuing violation of 30 TAC § 101.201(f) from December 8, 2006, to the present. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(f).

## 11. CLAIM NO. 6: CIVIL PENALTIES FOR EMISSIONS EVENT ON SEPTEMBER 1-15, 2006, IN FCCU NO. 3

11.1 According to reports BP submitted to the TCEQ, from September 1, 2006, to September 15, 2006, the 510CA exchanger in the FCCU No. 3 Cooling Tower leaked air contaminants. BP admitted to the release of air contaminants to the atmosphere for 347 hours and 15 minutes, including the following:

Air Contaminant	Quantity in lbs.
$H_2S$	5.00
VOCs	6,147.40

- 11.2 In TCEQ investigation No. 534737, the TCEQ determined that the 510CA Exchanger on the FCCU No. 3 cooling tower was leaking from September 1, 2006, to September 15, 2006. Citing the duration of the event, the TCEQ determined that BP had not maintained and operated the process in a manner consistent with practices to minimize emissions. On December 2, 2006, the TCEQ requested additional information from BP about the event. The TCEQ requested the information be submitted on or before December 8, 2006. To date, BP has not submitted the requested information.
- 11.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 11.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 11.1.
- 11.4 BP also violated 30 TAC § 101.201(f) by failing to provide requested information regarding the Emissions Event within the time set forth in the request. BP has been in continuing violation of 30 TAC § 101.201(f) from December 8, 2006, to the present. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(f).

# 12. CLAIM NO. 7: CIVIL PENALTIES FOR EMISSIONS EVENT ON OCTOBER 6-10, 2006, IN THE VAPOR RECOVERY UNIT DEPROPANIZER IN FCCU NO. 3

12.1 According to reports BP submitted to the TCEQ, on October 6, 2006, a bypass valve on the overhead portion of the Vapor Recovery Unit (VRU) Depropanizer in FCCU No. 3 began leaking to Flare No. 5. BP admitted to the release of air contaminants to the atmosphere for 97 hours and 37 minutes, including the following:

Air Contaminant	Quantity in lbs.
NO <sub>x</sub>	581.00
$SO_2$	28,609.00
$H_2S$	315.00
VOCs	1,822.00

- 12.2 In TCEQ investigation No. 535022, the TCEQ determined that a bypass valve on the overhead portion of the VRU Depropanizer in FCCU No. 3 leaked to Flare No. 5. On December 1, 2006, the TCEQ requested additional information regarding the event. The TCEQ requested the information be submitted on or before December 8, 2006. BP submitted the requested documentation to the TCEQ on October 2, 2008.
- 12.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 12.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 12.1.

- 12.4 BP also violated 30 TAC § 101.201(f) by failing to provide requested information regarding the Emissions Event within the time set forth in the request. BP continuously violated 30 TAC § 101.201(f) from December 8, 2006, to October 1, 2008. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(f).
- Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 5 (EPN FLR-5), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by November 9, 2006. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

# 13. CLAIM NO. 8: CIVIL PENALTIES FOR EMISSIONS EVENT ON OCTOBER 18-19, 2006, IN FCCU NO. 3

13.1 According to reports BP submitted to the TCEQ, on October 18, 2006, a computer system failure at FCCU No. 3 caused materials to be routed to Flare No. 3. BP admitted to the release of air contaminants to the atmosphere for 44 hours, including the following:

Air Contaminant	Quantity in Lbs.
СО	9,022.83
$NO_x$	1,200.54
SO <sub>2</sub>	2,261.69
VOCs	14,401.44

- 13.2 In TCEQ investigation No. 531855, the TCEQ determined that a computer system failure caused a power loss at FCCU No. 3. BP reported that the Critical Corrective Action System at FCCU No. 3 tripped due to a plug valve differential pressure, which routed materials to Flare No. 3. On November 21, 2006, the TCEQ requested additional information from BP about the event. The TCEQ requested the information be submitted on or before November 30, 2006. BP sent additional information on the event to the TCEQ on December 5, 2006, however, the information was insufficient. BP submitted additional information to the TCEQ on October 2, 2008.
- 13.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 13.1 without authorization. Pursuant to Texas Water Code

§ 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 13.1.

13.4 BP also violated 30 TAC § 101.201(f) by failing to provide requested information regarding the Emissions Event within the time set forth in the request. BP continuously violated 30 TAC § 101.201(f) from November 30, 2006, to December 4, 2006. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(f).

Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 3 (EPN 321), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by November 18, 2006. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

# 14. CLAIM NO. 9: CIVIL PENALTIES FOR EMISSIONS EVENT ON OCTOBER 20-21, 2006, IN FCCU NO. 3

14.1 According to reports BP submitted to the TCEQ, on October 20, 2006, BP restarted FCCU No. 3 and circulated torch oil causing emissions in addition to normal startup emissions. BP reported emissions from three separate emissions points: Flare No. 3, Flare No. 5, and the FCCU No. 3 Regenerator Stack. BP admitted to exceeding the permitted opacity and releasing air contaminants to the atmosphere for 24 hours and 26 minutes, including the following:

Air Contaminant	FCCU No. 3 Regenerator Stack Quantity in lbs.	Flare No. 3 Quantity in lbs.	Flare No. 5 Quantity in lbs.
СО	18,956.44	6,079.07	0.00
NO <sub>x</sub>	0.00	809.27	0.00
$SO_2$	0.00	2,723.18	568.00
VOCs	0.00	2,840.89	0.00

- 14.2 BP also reported an 80 percent opacity from the FCCU No. 3 Regenerator Stack.
- 14.3 BP submitted a final report on this event on November 2, 2006. This final report did not include the authorization or permit number governing the facilities involved in the Emissions Event. To date, BP has not submitted a report showing the required information.
- 14.4 In TCEQ investigation No. 542873, the TCEQ determined that, upon restart of FCCU No. 3, actual emissions exceeded those provided by BP in its initial notification

for at least one air contaminant. The TCEQ determined that this incident was, therefore, an Emissions Event pursuant to 30 TAC § 101.211(a).

- 14.5 On February 9, 2007, the TCEQ requested additional information from BP about the event. The TCEQ requested the information be submitted on or before February 23, 2007. To date, BP has not submitted the requested information.
- 14.6 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 14.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 14.1.
- 14.7 BP also violated TCAA § 382.085 and Permit 47256 by exceeding the permitted opacity limit of 20 percent averaged over a six-minute period. BP reported an opacity of 80 percent. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each opacity violation.
- 14.8 BP also violated 30 TAC § 101.201(f) by failing to provide requested information regarding the Emissions Event within the time set forth in the request. BP has been in continuing violation of 30 TAC § 101.201(f) from February 23, 2007, to the present. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(f).
- 14.9 BP also violated 30 TAC § 101.201(b)(1)(H) by failing to identify the applicable permit number in its final report of this Emissions Event. The final report was

due November 4, 2006. BP submitted a deficient final report on November 2, 2006. BP has been in continuing violation of 30 TAC § 101.201(b)(1)(H) from November 4, 2006, to the present. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(b)(1)(H).

14.10 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 3 (EPN 321) and Flare No. 5 (EPN FLR-5), devices listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by November 20, 2006. BP submitted the Flaring Root Cause Report to the TCEQ on May 22, 2009. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

### 15. CLAIM NO. 10: CIVIL PENALTIES FOR EXCESSIVE EMISSIONS EVENT ON NOVEMBER 13-28, 2006, FROM PIPESTILL NO. 3A

15.1 According to reports BP submitted to the TCEQ, on November 13, 2006, BP routed a vent gas line from Pipestill No. 3A to Flare No. 2. BP admitted to the release of air contaminants to the atmosphere for 349 hours and 23 minutes, including the following:

Air Contaminant	Quantity in lbs.
СО	2,068.00
NO <sub>x</sub>	275.00
SO <sub>2</sub>	56,324.00
VOCs	3,410.00

- 15.2 In TCEQ investigation No. 539374, the TCEQ determined that BP installed a new vent gas line flow meter on Flare No. 2 on November 13, 2006. BP reported that it eventually traced high flow readings at the meter to a vent gas line from Pipestill 3A that BP routed to Flare No. 2 during startup. Based on BP's reports, the TCEQ determined that this event was caused by operator error.
- 15.3 BP discovered the emission event on November 13, 2006, at 3:37 p.m. The initial notification of the Emissions Event was not submitted to the TCEQ until November 27, 2006, at 8:57 p.m. On February 6, 2007, the TCEQ requested modeling of the event. On March 28, 2007, the TCEQ requested additional information from BP about the event. The TCEQ requested the information be submitted on or before April 11, 2007. BP submitted the requested documentation to the TCEQ on October 2, 2008.

- 15.4 The TCEQ determined that this was an Excessive Emissions Event. The TCEQ received a CAP from BP for this event on August 27, 2007. The TCEQ approved the CAP on November 16, 2007.
- 15.5 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 15.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 15.1.
- 15.6 BP also violated 30 TAC § 101.201(f) by failing to provide requested information regarding the Emissions Event within the time set forth in the request. BP continuously violated 30 TAC § 101.201(f) from April 11, 2007, to October 1, 2008. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(f).
- 15.7 BP also violated 30 TAC § 101.201(a)(1)(B) by failing to submit its initial notification of an Emissions Event no later than 24 hours after discovery. As stated above, the event began on November 13, 2006; BP submitted its initial report of the event to the TCEQ on November 27, 2006. BP continuously violated 30 TAC § 101.201(a)(1)(B) from November 14, 2006, at 3:37 p.m. to November 27, 2006, at 8:57 p.m. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(a)(1)(B).

Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 2 (EPN 311), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by December 28, 2006. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

### 16. CLAIM NO. 11: CIVIL PENALTIES FOR EMISSIONS EVENT ON DECEMBER 7-12, 2006, IN THE ULTRACRACKER

16.1 According to reports BP submitted to the TCEQ, on December 7, 2006, BP started the Ultracracker (ULC) Unit after an extended turnaround. BP reported that during startup, the ULC developed a steam leak, causing the shutdown of Ultraformer No. 4. BP admitted to the release of air contaminants to the atmosphere for 123 hours; including the following:

Air Contaminant	Quantity in lbs.
СО	6,154.80
NO <sub>x</sub>	850.90
SO <sub>2</sub>	56,829.20
H <sub>2</sub> S	378.20
VOCs	2,821.30

- 16.2 In TCEQ investigation No. 542550, the TCEQ determined that, during a startup of the ULC, it developed a steam leak, causing the shutdown of Ultraformer No. 4. BP reported that the shutdown caused a release to Temporary Flare FS-48. The emissions on the final report for the event were greater than the emissions in the initial startup notification for at least one contaminant. The TCEQ determined that this incident was, therefore, an Emissions Event pursuant to 30 TAC § 101.211(a).
- 16.3 BP discovered that the startup developed into an Emissions Event on December 12, 2006. BP failed to notify the TCEQ within 24 hours of its discovery that the startup became an Emissions Event. To date, BP has not submitted an initial report for the emission event.
- 16.4 BP failed to submit a final report of the event to the TCEQ within two weeks of the end of the event. The event ended on December 12, 2006, however, BP submitted its final report on the Emissions Event to the TCEQ on February 28, 2007.
- 16.5 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 16.1 without authorization. Pursuant to Texas Water Code

§ 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 16.1.

16.6 BP also violated 30 TAC § 101.201(a)(1)(B) by failing to submit its initial notification of an Emissions Event no later than 24 hours after discovery. As stated above, BP discovered that the startup developed into an Emissions Event on December 12, 2006. To date, BP has not submitted an initial report for the Emissions Event. BP has continuously violated 30 TAC § 101.201(a)(1)(B) from December 13, 2006, to the present. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(a)(1)(B).

16.7 BP also violated 30 TAC § 101.201(b) by failing to submit its final notification of an Emissions Event within two weeks of the end of the event. The event ended on December 12, 2006, however, BP submitted its final report to the TCEQ on February 28, 2007. BP continuously violated 30 TAC § 101.201(b) from December 26, 2006, through February 27, 2007. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(b).

# 17. CLAIM NO. 12: CIVIL PENALTIES FOR EMISSIONS EVENT ON DECEMBER 21, 2006, AT FLARE NO. 1

17.1 According to reports BP submitted to the TCEQ, on December 21, 2006, several pieces of equipment shut down causing hydrocarbons to vent to Flare No. 1. BP

admitted to the release of an air contaminant to the atmosphere for 3 hours and 30 minutes, including the following:

Air Contaminant	Quantity in lbs.
$SO_2$	2,300.00

- 17.2 In TCEQ investigation No. 555878, the TCEQ determined that a power dip shut down several pieces of equipment, which caused gases to vent to Flare No. 1. On February 26, 2007, the TCEQ requested additional information from BP about the event. The TCEQ requested the information be submitted on or before March 12, 2007. To date, BP has not submitted the information requested by the TCEQ.
- 17.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 17.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 17.1.
- 17.4 BP also violated 30 TAC § 101.201(f) by failing to provide requested information regarding the Emissions Event within the time set forth in the request. BP has been in continuing violation of 30 TAC § 101.201(f) from March 12, 2007, to the present. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(f).
- 17.5 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this

Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 1 (EPN 301), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by January 20, 2007. BP submitted the Flaring Root Cause Report to the TCEQ on December 19, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

### 18. CLAIM NO. 13: CIVIL PENALTIES FOR EMISSIONS EVENT ON APRIL 10-11, 2007, AT FCCU NO. 3

18.1 According to reports BP submitted to the TCEQ, on April 10, 2007, an electrical failure caused pieces of equipment at FCCU No. 3 to shut down, causing an opacity exceedance and a release of hydrocarbons from the Electrostatic Precipitator (ESP), as well as a release of contaminants from Flare No. 3. BP admitted to the release of air contaminants to the atmosphere for 24 hours and 27 minutes, including the following:

Air Contaminant	ESP Fugitives Quantity in Lbs	Flare No. 3 Quantity in lbs.
SO <sub>2</sub>	0.00	2,294.00
NO <sub>x</sub>	0.00	214.00
VOCs	0.00	118.00
aluminum silicate	800.00	0.00

- 18.2 BP also reported a 94 percent opacity from the ESP.
- 18.3 In TCEQ investigation No. 561521, the TCEQ determined that an electrical failure caused by a power outage in the utilities section caused a temporary interruption in FCCU No. 3. BP reported that a power loss at Switch House No. 3 caused multiple trips of FCCU No. 3 equipment, including loss of multiple pumps.
- 18.4 On April 16, 2007, the TCEQ requested additional information concerning the event. The TCEQ requested the information be submitted on or before April 28, 2007. BP submitted the requested documentation to the TCEQ on October 2, 2008.
- 18.5 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 18.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 18.1.
- 18.6 BP also violated TCAA § 382.085 and Permit 47256 by exceeding the permitted opacity limit of 20 percent averaged over a six-minute period. BP reported an opacity of 94 percent. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each opacity violation.

18.7 BP also violated 30 TAC § 101.201(f) by failing to provide requested information regarding the Emissions Event within the time set forth in the request. BP continuously violated 30 TAC § 101.201(f) from April 28, 2007, through October 1, 2008. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(f).

Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 3 (EPN 321), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by May 11, 2007. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

# 19. CLAIM NO. 14: CIVIL PENALTIES FOR EMISSIONS EVENT ON APRIL 11-12, 2007, AT FCCU NO. 3

19.1 According to reports BP submitted to the TCEQ, on April 11, 2007, a relief device on the Depropanizer in FCCU No. 3 malfunctioned. BP reported that hydrocarbons from the Depropanizer were then routed to Flare No. 3 and Flare No. 5. This resulted in an opacity exceedance and release of contaminants from the ESP, as well as the release of contaminants from Flare No. 3 and Flare No. 5. BP admitted to the release of air contaminants to the atmosphere for 17 hours and 43 minutes, including the following:

Air Contaminant	ESP Fugitives Quantity in lbs.	Flare No. 3 Quantity in lbs.	Flare No. 5 Quantity in lbs.
$SO_2$	0.00	1,927.00	1,757.00
NO <sub>x</sub>	0.00	0.00	679.00
VOCs	0.00	925.00	821.00
aluminum silicate	800.00	0.00	0.00

- 19.2 BP also reported a 94 percent opacity from the ESP.
- 19.3 In TCEQ investigation No. 565839, the TCEQ determined that a relief valve on the Depropanizer tripped, which generated emissions that routed to Flare No. 3 and Flare No. 5. This caused an interruption at the FCCU No. 3 ESP, causing an exceedance of its permitted opacity. On April 16, 2007, the TCEQ requested additional information concerning the event. The TCEQ requested the information be submitted on or before April 28, 2007. To date, BP has not submitted the information requested by the TCEQ.

- 19.4 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 19.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 19.1.
- 19.5 BP also violated TCAA § 382.085 and Permit 47256 by exceeding the permitted opacity limit of 20 percent averaged over a six-minute period. BP reported an opacity of 94 percent. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each opacity violation.
- 19.6 BP also violated 30 TAC § 101.201(f) by failing to provide requested information regarding the Emissions Event within the time set forth in the request. BP has been in continuing violation of 30 TAC § 101.201(f) from April 28, 2007, to the present. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(f).
- 19.7 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 3 (EPN 321) and Flare No. (EPN FLR-5), devices listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by May 12, 2007. BP submitted the Flaring Root Cause Report to the TCEQ on May 22, 2009. Pursuant to Texas Water Code § 7.102, the State requests

the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

### 20. CLAIM NO. 15: CIVIL PENALTIES FOR EMISSIONS EVENT ON MAY 15-18, 2007, AT THE CAT FEED HYDROTREATING UNIT

20.1 According to reports BP submitted to the TCEQ, on May 15, 2007, a pressure relief valve on the Cat Feed Hydrotreating Unit (CFHU) vented hydrocarbons to CFHU Flare No. 1. BP admitted to the release of air contaminants to the atmosphere for 59 hours, including the following:

Air Contaminant	Quantity in lbs.
$SO_2$	5,428.00
NO <sub>x</sub>	340.00

20.2 In TCEQ investigation No. 573872, the TCEQ determined that a pressure relief valve on the 101/102 Compressor in the CFHU tripped, which caused materials to route to CFHU Flare No. 1. The TCEQ determined that the event could have been avoided by good operation practices.

- 20.3 BP's final report, submitted to the TCEQ on June 8, 2007, did not include the authorization number or permit governing the emission limits of such contaminants. BP submitted a final report to the TCEQ containing this information on October 2, 2008.
- 20.4 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 20.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 20.1.
- 20.5 BP also violated 30 TAC § 101.201(b)(1)(H) by failing to identify the applicable permit number in its final report of this Emissions Event. BP continuously violated 30 TAC § 101.201(b)(1)(H) from June 8, 2007, through October 1, 2008. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(b)(1)(H).
- 20.6 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from CFHU Flare No. 1 (EPN 501), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by June 17, 2007. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause

Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

## 21. CLAIM NO. 16: CIVIL PENALTIES FOR EMISSIONS EVENT ON JUNE 3-7, 2007, IN PIPESTILL NO. 3A

21.1 According to reports BP submitted to the TCEQ, on June 3, 2007, the J-457 Compressor in Pipestill 3A tripped resulting in a flow of fuel gas to Flare No.1. BP admitted to the release of air contaminants to the atmosphere for 91 hours and 35 minutes, including the following:

Air Contaminant	Quantity in lbs.
$SO_2$	9,769.00
NO <sub>x</sub>	462.00
СО	1,400.00
$H_2S$	106.00
VOCs	2,117.00

- 21.2 In TCEQ investigation No. 574185, the TCEQ determined that the J-457 Compressor tripped at Pipestill 3A and fuel gas flowed directly to Flare No. 1. The TCEQ determined that the event could have been avoided by good operation practices.
- 21.3 BP's final report was due to the TCEQ for this event on June 14, 2007. In its final report BP did not identify and list all of the reportable and non-reportable emissions of

released air contaminants and it also did not provide total quantities of the air contaminants released for each released contaminant. BP submitted a report to the TCEQ containing this information on October 2, 2008.

- 21.4 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 21.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 21.1.
- 21.5 BP also violated 30 TAC § 101.201(b)(1)(G) by failing to include a list of the reportable and non-reportable individual air contaminants released in its final report of this Emissions Event. BP continuously violated 30 TAC § 101.201(b)(1)(G) from June 21, 2007, through October 1, 2008. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(b)(1)(G).
- 21.6 BP also violated 30 TAC § 101.201(b)(1)(H) by failing to include the estimated total quantities for those listed air contaminants in its final report of this Emissions Event. BP continuously violated 30 TAC § 101.201(b)(1)(H) from June 21, 2007, through October 1, 2008. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(b)(1)(H).
- 21.7 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this

Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 1 (EPN 301), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by July 7, 2007. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

### 22. CLAIM NO. 17: CIVIL PENALTIES FOR EMISSIONS EVENT ON JUNE 8-9, 2007, AT PIPESTILL NO. 3A

22.1 According to reports BP submitted to the TCEQ, on June 8, 2007, the J-457 Vent Gas Compressor in Pipestill 3A tripped again resulting in a flow of fuel gas to Flare No.1. BP admitted to the release of air contaminants to the atmosphere for 13 hours and 5 minutes, including the following:

Air Contaminant	Quantity in lbs.
$SO_2$	2,277.00
NO <sub>x</sub>	104.04
СО	263.99
H <sub>2</sub> S	24.71
VOCs	333.08

- 22.2 In TCEQ investigation No. 595678, the TCEQ determined that, as in the Emissions Event above, the J-457 Compressor tripped at Pipestill 3A and fuel gas flowed directly to Flare No. 1. The TCEQ determined that the event could have been avoided by good operation practices.
- 22.3 BP's final report, submitted to the TCEQ on June 21, 2007, did not identify and list all of the reportable and non-reportable emissions of released air contaminants. To date, BP has not submitted a final report containing the required information.
- 22.4 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 22.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 22.1.
- 22.5 BP also violated 30 TAC § 101.201(b)(1)(G) by failing to include all the reportable and non-reportable emissions of individually listed air contaminants in its final report of this Emissions Event. BP has been in continuing violation of 30 TAC § 101.201(b)(1)(G) from June 21, 2007, to the present. Pursuant to Texas Water Code

§ 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(b)(1)(G).

22.6 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 1 (EPN 301), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by July 9, 2007. BP submitted the Flaring Root Cause Report to the TCEQ on December 19, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

### 23. CLAIM NO. 18: CIVIL PENALTIES FOR EMISSIONS EVENT ON JUNE 18-27, 2007, AT THE OIL MOVEMENT CENTER

23.1 According to reports BP submitted to the TCEQ, on June 18, 2007, part of the roof of Tank 90 at the Oil Movement Center (OMC) disintegrated when a worker stepped on it. BP admitted to the release of air contaminants to the atmosphere for 205 hours, including the following:

Air Contaminant	Quantity in lbs.
benzene	104.00
VOCs	2,683.00

- 23.2 In TCEQ investigation No. 596020, the TCEQ determined that a contract worker stepped through the floating roof deck of Tank 90 at the OMC while walking on a corroded area of the deck. The TCEQ determined that the event could have been avoided by good operation practices.
- 23.3 The event began on June 18, 2007, at 3:10 p.m. BP submitted its initial report of the event to the TCEQ on June 26, 2007, at 1:23 p.m.
- 23.4 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 23.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 23.1.
- 23.5 BP also violated 30 TAC § 101.201(a)(1)(B) by failing to submit its initial notification of an Emissions Event no later than 24 hours after discovery. As stated above, the event began on June 18, 2007, at 3:10 p.m.; BP submitted its initial report of the event to the TCEQ on June 26, 2007, at 1:23 p.m. BP continuously violated 30 TAC § 101.201(a)(1)(B) from June 19, 2007, at 3:11 p.m. to June 26, 2007, at 1:23 p.m. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(a)(1)(B).

## 24. CLAIM NO. 19: CIVIL PENALTIES FOR EMISSIONS EVENT ON JULY 10, 2007, AT THE ULC

24.1 According to reports BP submitted to the TCEQ, on July 10, 2007, the 101-JA Recycle Gas Compressor tripped in the ULC causing temperatures in the 100-D Reactor to rise thereby leading to several leaks in flanges in the ULC. BP also reported a release of hydrocarbons from the ULC Flare. BP admitted to the release of air contaminants to the atmosphere for 3 hours, including the following:

Air Contaminant	ULC Fugitives Quantity in lbs.	ULC Flare Quantity in lbs.
$SO_2$	0.00	469.00
$H_2S$	9.00	5.00
СО	0.00	108.00
benzene	16.00	0.00
NO <sub>x</sub>	0.00	46.00
VOCs	1,034.00	124.00

- 24.2 In TCEQ investigation No. 598008, the TCEQ determined that the 101-JA Recycle Gas Compressor shut down during testing of the high level critical alarm associated with the 101-F High Pressure Separator. BP reported that this shut down caused temperatures to rise in the 100-D Reactor, which caused a leak in the Reactor's flange. BP also reported that it released product through the flanges and the ULC Flare. The TCEQ determined that poor maintenance activities contributed to this event.
- 24.3 The event began on July 10, 2007, at 2:10 p.m. BP submitted its initial report of the event to the TCEQ on July 11, 2007, at 4:15 p.m. BP's final report, submitted to the

TCEQ on July 24, 2007, did not include the authorization number or permit governing the emission limits of such contaminants. To date, BP has not submitted a report containing the required information.

- 24.4 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 24.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 24.1.
- 24.5 BP also violated 30 TAC § 101.201(a)(1)(B) by failing to submit its initial notification of an Emissions Event no later than 24 hours after its discovery. As stated above, the event began on July 10, 2007, at 2:10 p.m., however, BP submitted its initial report of the event to the TCEQ on July 11, 2007, at 4:15 p.m. BP violated 30 TAC § 101.201(a)(1)(B) for at least 1 day. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(a)(1)(B).
- 24.6 BP also violated 30 TAC § 101.201(b)(1)(H) by failing to identify the applicable permit number in its final report of this Emissions Event. BP has been in continuing violation of 30 TAC § 101.201(b)(1)(H) from July 24, 2007, to the present. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(b)(1)(H).

## 25. CLAIM NO. 20: CIVIL PENALTIES FOR EMISSIONS EVENT ON JULY 18, 2007, AT THE ULC

25.1 According to reports BP submitted to the TCEQ, on July 18, 2007, during a startup of the ULC, the Refinery's vent gas system over pressured to Flare No. 1. BP admitted to the release of air contaminants to the atmosphere for 7 hours, including the following:

Air Contaminant	Quantity in lbs.
$SO_2$	668.00
NO <sub>x</sub>	9.00
СО	64.00
benzene	1.00
VOCs	133.00

- 25.2 In TCEQ investigation No. 608834, the TCEQ determined that BP changed the Refinery's configuration of Coker C operation ratios, which increased the amount of gas being sent to the vent gas system. BP reported that it operated only one of the two utilities compressors at the time of the event. It also reported that the startup of the ULC increased the amount of gas in the system, causing it to over pressure and vent to Flare No. 1. The TCEQ determined that the event could have been avoided by good operational and maintenance practices.
- 25.3 BP's final report, submitted to the TCEQ on August 1, 2007, did not include the authorization number or permit governing the emission limits of such contaminants. BP submitted a report to the TCEQ which included this information on October 2, 2008.

- 25.4 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 25.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 25.1.
- 25.5 BP also violated 30 TAC § 101.201(b)(1)(H) by failing to identify the applicable permit number in its final report for this Emissions Event. BP continuously violated 30 TAC § 101.201(b)(1)(H) from August 1, 2007, through October 1, 2008. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(b)(1)(H).
- Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 1 (EPN 301), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by August 17, 2007. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative,

pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

## CLAIM NO. 21: CIVIL PENALTIES FOR EMISSIONS EVENT ON JULY 31, 2007, AT THE ULC

25.7 According to reports BP submitted to the TCEQ, on July 31, 2007, the ULC 100-JD Makeup Compressor tripped causing the vent gas system to over pressure and release hydrocarbons to Flare No. 1. BP admitted to the release of air contaminants to the atmosphere for 13 hours, including the following:

Air Contaminant	Quantity in lbs.
SO <sub>2</sub>	973.00
NO <sub>x</sub>	24.00
СО	163.00
H <sub>2</sub> S	11.00
VOCs	332.00

- 25.8 In TCEQ investigation No. 609291, the TCEQ determined that the ULC 100-JD Makeup Compressor tripped after a lube oil system problem. BP reported that when the Compressor tripped, it caused the low pressure vent gas system to over pressure, resulting in a release to Flare No. 1. The TCEQ determined that the event could have been avoided by good operation practices.
- 25.9 The event began on July 31, 2007, at 8:00 a.m. BP submitted its initial report on August 1, 2007, at 9:45 a.m. BP's final report, submitted to the TCEQ on August 13, 2007, did not include the authorization number or permit governing the emission limits of

such contaminants. BP submitted a final report to the TCEQ that included this information on October 2, 2008.

25.10 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 26.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 26.1.

25.11 BP also violated 30 TAC § 101.201(a)(1)(B) by failing to submit its initial notification of an Emissions Event no later than 24 hours after discovery. As stated above, the event began on July 31, 2007, at 8:00 a.m.; BP submitted its initial report on August 1, 2007, at 9:45 a.m. BP violated 30 TAC § 101.201(a)(1)(B) for at least 1 day. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(a)(1)(B).

25.12 BP also violated 30 TAC § 101.201(b)(1)(H) by failing to identify the applicable permit number in its final report of this Emissions Event. BP violated 30 TAC § 101.201(b)(1)(H) from August 14, 2007, through October 1, 2008. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(b)(1)(H).

25.13 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 1 (EPN 301), a device listed in the 2006 Order. Ordering Provision

4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by August 30, 2007. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

# 26. CLAIM NO. 22: CIVIL PENALTIES FOR EXCESSIVE EMISSIONS EVENT ON AUGUST 4-5, 2007, AT ULTRAFORMER NO. 4

26.1 According to reports BP submitted to the TCEQ, on August 4, 2007, a heat exchanger tube leaked butane into the condensate system at the C-432 Depropanizer Reboiler in Ultraformer No. 4. BP reported a release of hydrocarbons from the F-417 Deaerator and, during repair of a heat exchanger, a release of hydrocarbons to a temporary flare. BP admitted to releases of an air contaminant into the atmosphere for 25 hours and 20 minutes, including the following:

Air Contaminant	Deaerator Vent Fugitives Quantity in lbs.	Temporary Flare Quantity in lbs.
VOCs	24,952.00	919.00

- 26.2 In TCEQ investigation No. 610067, the TCEQ determined that the exchanger tube leak caused the pressure in the condensate system to increase. BP reported that the pressure increase adversely affected the pressure in a deaerator fed by the condensate system. As a result, BP reported that it released hydrocarbons from a drum vent on top of the F-417 Deaerator. During the maintenance activity to repair the ruptured exchanger tube, BP reported that it failed to prevent an exchanger relief valve from over pressuring and relieving to a temporary flare. The TCEQ determined that the event could have been avoided by good operation practices.
- 26.3 The event began on August 4, 2007, at 10:50 a.m. BP submitted its initial report of the event to the TCEQ on August 17, 2007, at 2:20 p.m. BP's final report, submitted to the TCEQ on August 31, 2007, did not include the authorization number or permit governing the emission limits of such contaminants. To date, BP has not submitted a report containing the required information.
- 26.4 The TCEQ determined that this was an Excessive Emissions Event. On April 24, 2008, the TCEQ sent notification to BP that the Emissions Event was excessive and that BP had to submit a CAP to the TCEQ within 60 days of receipt of the notification. BP received this Excessive Emissions Event notification on April 25, 2008. The TCEQ received a CAP from BP on January 21, 2009. The TCEQ approved the CAP on March 20, 2009.

26.5 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 27.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 27.1.

26.6 BP also violated 30 TAC § 101.201(a)(1)(B) by failing to submit its initial notification of an Emissions Event no later than 24 hours after its discovery. As stated above, the event began on August 4, 2007, at 10:50 a.m. However, BP submitted its initial report of the event to the TCEQ on August 17, 2007, at 2:20 p.m. BP continuously violated 30 TAC § 101.201(a)(1)(B) from August 5, 2007, at 10:51 a.m. to August 17, 2007, at 2:20 p.m. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(a)(1)(B).

26.7 BP also violated 30 TAC § 101.201(b)(1)(H) by failing to identify the applicable permit number in its final report of this Emissions Event. BP has been in continuing violation of 30 TAC § 101.201(b)(1)(H) from August 31, 2007, to the present. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(b)(1)(H).

26.8 BP also violated 30 TAC § 101.223(a)(1) by failing to submit a CAP within 60 days of receiving the TCEQ's Excessive Emissions Event notification. BP received this notification on April 25, 2008, and submitted its CAP to the TCEQ on January 21, 2009. BP violated 30 TAC § 101.223(a)(1) from June 24, 2008, to January 21, 2009. Pursuant to

Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.223(a)(1).

### CLAIM NO. 23: CIVIL PENALTIES FOR EMISSIONS EVENT ON SEPTEMBER 7-8, 2007, AT THE CAT FEED HYDROTREATING UNIT

26.9 According to reports BP submitted to the TCEQ, on September 8, 2007, a valve in the CFHU failed resulting in the release of hydrocarbons to CFHU Flare No. 1. BP admitted to the release of air contaminants to the atmosphere for 1 hour and 8 minutes, including the following:

Air Contaminant	Quantity in lbs.
$SO_2$	16,858.00
NO <sub>x</sub>	86.00
СО	260.00
$H_2S$	183.00
VOCs	102.00

26.10 In TCEQ investigation No. 610597, the TCEQ determined that a motor-operated valve at the CFHU failed in the open position. BP reported that the valve failure resulted in the shutdown of the Unit. Upon investigation, BP reported that it found water in the valve wiring junction box. The TCEQ determined that the event could have been avoided by good operation practices.

26.11 BP's final report, submitted to the TCEQ on September 21, 2007, did not include the authorization number or permit governing the emission limits of such

contaminants. BP submitted a final report to the TCEQ that included this information on October 2, 2008.

26.12 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 28.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 28.1.

26.13 BP violated 30 TAC § 101.201(b)(1)(H) by failing to identify the applicable permit number in its final report of this Emissions Event. BP continuously violated 30 TAC § 101.201(b)(1)(H) from September 22, 2007, through October 1, 2008. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(b)(1)(H).

26.14 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from CFHU Flare No. 1 (EPN 501), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by October 8, 2007. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed

to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

## 27. CLAIM NO. 24: CIVIL PENALTIES FOR EMISSIONS EVENT ON OCTOBER 18-19, 2007, AT THE ULTRACRACKER

27.1 According to reports BP submitted to the TCEQ, on October 18, 2007, a lube oil turbine in the ULC tripped. BP reported that this eventually caused a shutdown of the ULC and hydrocarbons from the ULC went to the ULC Flare. BP admitted to the release of air contaminants to the atmosphere for 11 hours and 33 minutes, including the following:

Air Contaminant	Quantity in lbs.
SO <sub>2</sub>	1,576.00
NO <sub>x</sub>	19.00
СО	95.00
H <sub>2</sub> S	17.00
VOCs	153.00

27.2 In TCEQ investigation No. 610827, the TCEQ determined that the 104-J lube oil turbine tripped causing the ULC to become unstable, which caused the 101-D Reactor wall temperature to increase above safe operating levels and required a unit shut down. BP reported that depressurization of the system led to a release of hydrocarbons through the ULC Flare. The TCEQ determined that the event could have been avoided by good operation practices.

- 27.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 29.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 29.1.
- 27.4 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from the ULC Flare (EPN 351A), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by November 18, 2007. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

### 28. CLAIM NO. 25: CIVIL PENALTIES FOR EMISSIONS EVENT ON NOVEMBER 18-20, 2007, AT THE CAT FEED HYDROTREATING UNIT

28.1 According to reports BP submitted to the TCEQ, on November 18, 2007, during a startup of the CFHU hydrocarbons vented to CFHU Flare No. 1. BP admitted to

the release of air contaminants to the atmosphere for 46 hours and 30 minutes, including the following:

Air Contaminant	Quantity in lbs.
$SO_2$	4,096.00
NO <sub>x</sub>	340.00
СО	1,733.00
H <sub>2</sub> S	44.00
VOCs	407.00

- 28.2 In TCEQ investigation No. 636332, the TCEQ determined that during startup the pressure in the CFHU increased above what BP anticipated. BP reported that the increased pressure occurred during the catalyst reaction phase when the gas in the system expanded, increasing the pressure, which caused extended venting to CFHU Flare No. 1. The TCEQ determined that the event could have been avoided if BP followed good operation practices.
- 28.3 The event began on November 18, 2007, at 4:00 a.m. BP submitted its initial report of the event to the TCEQ on November 27, 2007, at 5:36 p.m.
- 28.4 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 30.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 30.1.

28.5 BP also violated 30 TAC § 101.201(a)(1)(B) by failing to submit its initial notification of an Emissions Event no later than 24 hours after its discovery. As stated above, the event began on November 18, 2007, at 4:00 a.m.; BP submitted its initial report of the event to the TCEQ on November 27, 2007, at 5:36 p.m. BP continuously violated 30 TAC § 101.201(a)(1)(B) from November 19, 2007, at 4:01 a.m. to November 27, 2007, at 5:36 p.m. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(a)(1)(B).

Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from CFHU Flare No. 1 (EPN 501), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by December 20, 2007. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

# 29. CLAIM NO. 26: CIVIL PENALTIES FOR EMISSIONS EVENT ON NOVEMBER 19 TO DECEMBER 7, 2007, AT FCCU NO. 1

29.1 According to reports BP submitted to the TCEQ, on November 19, 2007, BP began startup procedures at FCCU No. 1. BP reported that the startup stage lasted longer than anticipated because of a power outage, electrical issues, and a leaking tube. BP admitted to exceeding permitted opacity limits and releasing air contaminants to the atmosphere for 455 hours and 59 minutes, including the following:

Air Contaminant	Electrostatic Precipitator Stack Quantity in lbs.	Refinery Flare No. 3 Quantity in lbs.	Refinery Flare No. 4 Quantity in lbs.
СО	112,147.00	581.00	15,039.00
aluminum silicate	955.00	0.00	0.00
SO <sub>2</sub>	0.00	42.00	5,698.00
H <sub>2</sub> S	0.00	0.5	62.00
NO <sub>x</sub>	0.00	114.00	2,951.00
VOCs	0.00	909.00	14,735.00

- 29.2 BP also reported a 94 percent opacity from the ESP.
- 29.3 In TCEQ investigation No. 641377, the TCEQ determined that BP began the startup of FCCU No. 1 after the Unit was idle for two years. BP reported that the startup was set to begin on November 16, 2007, but electrical problems, a power outage, and a tubing leak delayed the startup. According to BP, it started the repairs while continuing the startup, instead of shutting down and restarting. BP also reported that each of the factors identified above required the torch oil to be circulated longer, extending the startup time

and increasing emissions. The TCEQ determined that the event could have been avoided if BP had followed good operation practices.

29.4 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 31.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 31.1.

29.5 BP also violated TCAA § 382.085 and Permit 47256 by exceeding the permitted opacity limit of 20 percent averaged over a six-minute period. BP reported an opacity of 94 percent. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each opacity violation.

29.6 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Refinery Flare No. 4 (EPN 321), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by January 6, 2008. BP submitted the Flaring Root Cause Report to the TCEQ on May 22, 2009. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to

timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

## 30. CLAIM NO. 27: CIVIL PENALTIES FOR EMISSIONS EVENT ON DECEMBER 2, 2007, AT POWER AREA 2

30.1 According to reports BP submitted to the TCEQ, on December 2, 2007, the J-425 Vent Gas Compressor shut down in Power Area 2, resulting in flaring of low pressure vent gas from Flare No. 1. BP admitted to the release of air contaminants to the atmosphere for 11 hours and 29 minutes, including the following:

Air Contaminant	Quantity in lbs.
СО	205.97
H <sub>2</sub> S	32.76
NO <sub>x</sub>	67.82
$SO_2$	3,018.90
VOCs	304.07

30.2 In TCEQ investigation No. 636480, the TCEQ determined that the J-425 Vent Gas Compressor tripped, resulting in low pressure vent gas which flared through the low pressure system to Flare No. 1. BP reported that it shut down the Vent Gas Compressor to prevent damage to the Compressor. According to BP, it discovered that a cylinder lubricating pump on the Compressor failed because of water in the modular lube oil pump and system lines. The TCEQ determined that this event could have been avoided if BP had followed good operation practices.

30.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 32.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 32.1.

30.4 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 1 (EPN 301), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by January 1, 2008. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

## 31. CLAIM NO. 28: CIVIL PENALTIES FOR EMISSIONS EVENT ON JANUARY 18 TO FEBRUARY 22, 2008, AT TANK 501 AND FCCU NO. 1

31.1 According to reports BP submitted to the TCEQ, on January 18, 2008, BP found a layer of gasoline floating on the top of Tank 501. BP reported that the gasoline

vented to the atmosphere and that it found gasoline in the sewer system at FCCU No. 1. BP admitted to the release of air contaminants to the atmosphere for 840 hours and 30 minutes, including the following:

Air Contaminant	FCCU No. 1 Fugitives Quantity in lbs.	Tank 501 Fugitives Quantity in lbs.
benzene	203.96	4.41
VOCs	10,599.82	975.37

- 31.2 In TCEQ investigation No. 653423, the TCEQ determined that the gasoline layer found on Tank 501 was caused by a failure of the pump internal suction and discharge ball checks as well as a failure of the discharge check valve. BP reported that the failure of the pump allowed reverse flow through the pump, which allowed gasoline to flow into Tank 501. According to BP, it also discovered gasoline in the on-site sewer system near FCCU No. 1; and it later found this to be caused by a valve and line discharging below the ground. The TCEQ determined that the event could have been avoided by better operation and design.
- 31.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 33.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 33.1.

# 32. CLAIM NO. 29: CIVIL PENALTIES FOR EMISSIONS EVENT ON JANUARY 30 TO FEBRUARY 1, 2008, AT FCCU NO. 3

32.1 According to reports BP submitted to the TCEQ, on January 30, 2008, during startup of FCCU No. 3 actual emissions exceeded the estimated quantities for the startup. BP admitted to the release of air contaminants to the atmosphere for 43 hours and 40 minutes, including the following:

Air Contaminant	Flare No. 3 Quantity in lbs.	Flare No. 5 Quantity in lbs.	Wet Gas Scrubber Quantity in lbs.
СО	843.00	56.00	32,438.00
$H_2S$	12.00	0.00	0.00
NO <sub>x</sub>	177.00	30.00	0.00
SO <sub>2</sub>	1,088.00	0.00	0.00
VOCs	1,292.00	122.00	0.00

- 32.2 In TCEQ investigation No. 680463, the TCEQ determined that during a routine startup of FCCU No. 3, BP staff failed to estimate accurately the amount of emissions anticipated for the startup. The emissions on the final report for the event were greater than the emissions in the initial startup notification for at least one contaminant. This event is, therefore, an Emissions Event pursuant to 30 TAC § 101.211(a). The TCEQ determined that poor operation practices caused this event.
- 32.3 BP discovered that the startup developed into an Emissions Event on or about January 30, 2008. BP failed to notify the TCEQ within 24 hours of its discovery that the

startup became an Emissions Event. To date, BP has not submitted an initial report for the Emissions Event.

- 32.4 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 34.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 34.1.
- 32.5 BP also violated 30 TAC § 101.201(a)(1)(B) by failing to submit its initial notification of an Emissions Event no later than 24 hours after its discovery. BP has been in continuous violation of 30 TAC § 101.201(a)(1)(B) from on or about January 30, 2008, to the present. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(a)(1)(B).
- 32.6 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 3 (EPN 321), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by March 2, 2008. BP submitted the Flaring Root Cause Report to the TCEQ on December 19, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely

submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

## CLAIM NO. 30: CIVIL PENALTIES FOR EMISSIONS EVENT ON FEBRUARY 26, 2008, AT THE COKER COMPLEX

32.7 According to reports BP submitted to the TCEQ, on February 26, 2008, during startup of the Coker B Unit in the Coker Complex, the Unit vented hydrocarbons to the flare header system and Flare No. 2. BP admitted to the release of air contaminants to the atmosphere for 2 hours and 25 minutes, including the following:

Air Contaminant	Quantity in lbs.
СО	60.00
H <sub>2</sub> S	11.00
NO <sub>x</sub>	12.00
SO <sub>2</sub>	1,025.00
VOCs	68.00

- 32.8 In TCEQ investigation No. 670897, the TCEQ determined that BP directed both Coker B and C Units to the three pound vent system when the gas pressure from the Coker C Unit caused the valve from the Coker B Unit to open and vent to the flare header system and Flare No. 2. According to BP, the operator failed to control the gas pressure from the Coker C Unit. The TCEQ determined that poor operation caused the event.
- 32.9 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 35.1 without authorization. Pursuant to Texas Water Code

§ 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 35.1.

32.10 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 2 (EPN 311), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by March 27, 2008. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

### 33. CLAIM NO. 31: CIVIL PENALTIES FOR EMISSIONS EVENT ON MARCH 20, 2008, AT POWER STATION 2

33.1 According to reports BP submitted to the TCEQ, on March 20, 2008, at the Power Station No. 2, a vent gas compressor tripped, causing a release to Flare No. 1. BP admitted to the release of air contaminants to the atmosphere for 3 hours and 30 minutes, including the following:

Air Contaminant	Quantity in lbs.
SO <sub>2</sub>	918.62
co	51.33
H <sub>2</sub> S	9.97
NO <sub>x</sub>	10.07
VOCs	77.53

- 33.2 In TCEQ investigation No. 684674, the TCEQ determined that J-457 Vent Gas Compressor in Pipestill 3 tripped when the liquid level in the wet gas knockout drum rose above a trip point. BP reported that the high liquid level in the knockout drum was caused by overflow of the overhead product drum into the wet gas knockout drum. According to BP, this over pressured the three pound fuel gas system, tripping off the J-425 Compressor in Power Station 2, which resulted in the emissions. The TCEQ determined that poor operation practices caused this event.
- 33.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 36.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 36.1.
- 33.4 BP also violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 1 (EPN 301), a device listed in the 2006 Order. Ordering Provision

4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by April 20, 2008. BP submitted the Flaring Root Cause Report to the TCEQ on October 2, 2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

# 34. CLAIM NO. 32: CIVIL PENALTIES FOR FAILURE TO SUBMIT REPORT FOR FLARING EVENT ON MARCH 21, 2008 AT PIPESTILL 3B

34.1 According to reports BP submitted to the TCEQ, on March 21, 2008, while Pipestill 3B was starting up, liquid overflowed to the fuel gas system increasing the pressure in the system, which shutdown the J-425 Compressor. The relief valve on the J-425 Compressor opened to relieve the excess pressure. When the J-425 Compressor restarted, the relief valve did not reseat properly, sending materials to Flare No. 2. BP admitted to the release of air contaminants to the atmosphere for 19 hours, including the following:

Air Contaminant	Quantity in lbs.
СО	124.10
H <sub>2</sub> S	8.30
NO <sub>x</sub>	24.30
SO <sub>2</sub>	762.30
VOCs	209.10

34.2 In TCEQ investigation No. 685538, the TCEQ determined that BP met an affirmative defense for this event. BP stated in its reports regarding the event that the relief valve on the J-425 Compressor failed to reseat properly for unknown reasons. BP asserts that it regularly inspects the relief valve as part of its preventative maintenance program, and it inspected the valve on August 2, 2007. BP reseated the relief valve manually when staff discovered an unknown emissions stream flowing to Flare No. 2 and BP traced the cause back to the relief valve. TCEQ did not issue a violation for the air contaminants released by BP during this event. However, during the event Flare No. 2 released several air contaminants, among them, 762.30 pounds of SO<sub>2</sub>.

34.3 BP violated the 2006 Order by failing to timely submit a Flaring Root Cause Report. The 2006 Order required BP to submit a Flaring Root Cause Report for this Emissions Event because it involved the release of over 500 lbs. of SO<sub>2</sub> in a period of 24 hours from Flare No. 2 (EPN 311), a device listed in the 2006 Order. Ordering Provision 4.a.ii of the 2006 Order required BP to submit the Flaring Root Cause Report to the TCEQ by April 20, 2008. BP submitted the Flaring Root Cause Report to the TCEQ on October 2,

2008. Pursuant to Texas Water Code § 7.102, the State requests the maximum civil penalty of \$25,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. In the alternative, in accordance with Ordering Provision 2 of the 2006 Order, the State requests the stipulated penalty of \$10,000 for each day BP failed to timely submit the Flaring Root Cause Report for this event. Further in the alternative, pursuant to Texas Water Code § 7.102 the State requests a civil penalty within the statutory range for each day BP failed to timely submit the Flaring Root Cause Report for this event.

# 35. CLAIM NO. 33: CIVIL PENALTIES FOR EMISSIONS EVENT ON MARCH 25, 2008, AT FCCU NO. 1

35.1 According to reports BP submitted to the TCEQ, on March 25, 2008, the FCCU No. 1 Debutanizer Reflux Pump developed a leak in its tubing. BP admitted to the release of air contaminants to the atmosphere for 1 hour and 25 minutes, including the following:

Air Contaminant	Quantity in lbs.
$H_2S$	8.04
VOCs	4,465.51

35.2 In TCEQ investigation No. 683807, the TCEQ determined that a leak in the stainless steel tubing at the Debutanizer Reflux Pump J-470 was caused by external-chloride-induced stress. BP reported that the elevated chloride levels were likely caused by the fire water deluge system. The TCEQ determined that the event could have been avoided with good design practices.

35.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 38.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 38.1.

# 36. CLAIM NO. 34: CIVIL PENALTIES FOR EMISSIONS EVENT ON APRIL 24, 2008, AT COKER B

36.1 According to reports BP submitted to the TCEQ, on April 24, 2008, the Coker B North Drum over pressured and its relief valve released hydrocarbons to the atmosphere. BP admitted to the release of air contaminants to the atmosphere for 3 minutes, including the following:

Air Contaminant	Quantity in lbs.
H <sub>2</sub> S	103.00
СО	5.00
VOCs	13,656.00

- 36.2 In TCEQ investigation No. 683313, the TCEQ determined that as operations switched from one coke drum to another, transfer line temperature and synchronization were improper, which caused the pressure in the system to increase and the relief valve opened in order to prevent catastrophic failure. The TCEQ determined that poor operation practices caused this event.
- 36.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 39.1 without authorization. Pursuant to Texas Water Code

§ 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 39.1.

### 37. CLAIM NO. 35: CIVIL PENALTIES FOR EMISSIONS EVENT ON MAY 9-12, 2008, AT FCCU NO. 3

37.1 According to reports BP submitted to the TCEQ, on May 9, 2008, a leak occurred in tubing on a pressure transmitter at FCCU No. 3's 506-E Tower. BP admitted to the release of air contaminants to the atmosphere for 72 hours and 48 minutes, including the following:

Air Contaminant	Quantity in lbs.
$H_2S$	45.00
VOCs	2,224.00

- 37.2 In TCEQ investigation No. 686908, the TCEQ determined that an odor was detected by contractors working on the 506-E Tower. BP reported that its maintenance staff determined that the leak was coming from a deformed tubing connection. The TCEQ determined that poor operation and maintenance practices caused this event.
- 37.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 40.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 40.1.

## CLAIM NO. 36: CIVIL PENALTIES FOR EMISSIONS EVENT ON MAY 16-18, 2008, AT AROMATICS UNIT COOLING TOWER

37.4 According to reports BP submitted to the TCEQ, on May 16, 2008, the Aromatics Unit 2 Cooling Tower water exchanger developed a leak, which resulted in material entering the cooling water. BP admitted to the release of air contaminants to the atmosphere for 48 hours, including the following:

Air Contaminant	Quantity in lbs.
benzene	844.74
VOCs	284.20

- 37.5 In TCEQ investigation No. 687722, the TCEQ determined that the water exchanger in the Aromatics Unit 2 Cooling Tower developed a leak. BP reported that its employees took action to shutdown the Unit within 24 hours of locating the source of the leak. The TCEQ was unable to determine if the leak could have been prevented, because BP had not completed its investigation into the root cause of the event.
- 37.6 The event began on May 16, 2008, at 3:50 p.m. BP submitted its initial report of the event to the TCEQ on May 20, 2008, at 2:15 p.m.
- 37.7 BP violated TCAA § 382.085 and Permit 2612 by emitting the air contaminants listed in paragraph 41.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 41.1.

37.8 BP also violated 30 TAC § 101.201(a)(1)(B) by failing to submit its initial notification of an Emissions Event no later than 24 hours after its discovery. As stated above, the event began on May 16, 2008, at 3:50 p.m.; BP submitted its initial report of the event to the TCEQ on May 20, 2008, at 2:15 p.m. BP continuously violated 30 TAC § 101.201(a)(1)(B) from May 17, 2008, at 3:51 p.m. to May 20, 2008, at 2:15 p.m. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day BP violated 30 TAC § 101.201(a)(1)(B).

# 38. CLAIM NO. 37: CIVIL PENALTIES FOR EMISSIONS EVENT ON JUNE 19, 2008, AT ULTRAFORMER NO. 4

38.1 According to reports BP submitted to the TCEQ, on June 19, 2008, the 3 Phase Separator project excavation filled with liquid from an open-ended 4-inch oil water separator line. BP admitted to the release of air contaminants to the atmosphere for 1 hour and 15 minutes, including the following:

Air Contaminant	Quantity in lbs.
benzene	13.49
VOCs	1,335.18

38.2 In TCEQ investigation No. 725121, the TCEQ determined that a BP operator was cleaning pump screens and inadvertently left a drain valve open to the Oil Water Separator Sewer. BP reported that flow meters showed no flow in the lines and other process equipment failed to activate to stop the release to the Oil Water Separator Sewer. Contractors working on the excavation at the 3 Phase Separator project continued

demolishing the sewer line, thinking that it was abandoned and unaware that materials were in the line. Excavation planning failed to identify the open-ended line, leading to the release. The TCEQ determined that the Emissions Event could have been avoided by better operations practices.

38.3 BP violated TCAA § 382.085 and Permit 6488 by emitting the air contaminants listed in paragraph 42.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 42.1.

## 39. CLAIM NO. 38: CIVIL PENALTIES FOR EMISSIONS EVENT ON JUNE 22, 2008, AT FCCU NO. 1

39.1 According to reports BP submitted to the TCEQ, on June 22, 2008, the tubing on the J-470 Debutanizer Reflux Pump within FCCU 1 failed. BP admitted to the release of air contaminants to the atmosphere for 30 minutes, including the following:

Air Contaminant	Quantity in lbs.
$H_2S$	4.00
VOCs	1,816.00

39.2 In TCEQ investigation No. 723203, the TCEQ determined that the casing flush tubing on J-470 Debutanizer Reflux Pump failed. BP reported that the tubing failure allowed light hydrocarbons to leak to the atmosphere. The TCEQ determined that BP failed to maintain the tubing, which caused this event.

39.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 43.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 43.1.

### 40. CLAIM NO. 39: CIVIL PENALTIES FOR EMISSIONS EVENT ON JULY 1, 2008, AT CFHU FLARE NO. 2

40.1 According to reports BP submitted to the TCEQ, on July 1, 2008, pressure inside a drum in the RHU increased, which caused the relief valve on the drum to vent materials to CFHU Flare No. 2. BP admitted to the release of air contaminants to the atmosphere for 2 hours and 10 minutes, including the following:

Air Contaminant	Quantity in lbs.
СО	688.00
$H_2S$	52.00
NO <sub>x</sub>	135.00
SO <sub>2</sub>	4,809.00
VOCs	715.00

40.2 In TCEQ investigation No. 700256, the TCEQ determined that a blocked vapor outlet on Drum 206-F at the RHU caused pressure inside the Drum to increase. BP reported that the increased pressure then caused the relief valve on the Drum to open and vent materials to CFHU Flare No. 2. The TCEQ determined that BP failed to prevent blockage of the vapor outlet on Drum 206-F at the RHU, which caused this event.

40.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 44.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 44.1.

## 41. CLAIM NO. 40: CIVIL PENALTIES FOR THE EMISSIONS EVENT ON JULY 25, 2008, AT PIPESTILL 3A

41.1 According to reports BP submitted to the TCEQ, on July 25, 2008, the tubing on the relief valve piping on a drum in Pipestill 3A failed, which caused materials to leak from the piping. BP admitted to the release of air contaminants to the atmosphere for 41 minutes, including the following:

Air Contaminant	Quantity in lbs.
benzene	109.00
VOCs	9,196.00

- 41.2 In TCEQ investigation No. 724408, the TCEQ determined that the tubing failed on the relief valve piping of Drum 379-F in Pipestill 3A. BP reported that the failed tubing released material directly to the atmosphere. The TCEQ determined that BP failed to maintain the tubing on the relief valve piping, which caused this event.
- 41.3 BP violated TCAA § 382.085 and Permit 19599 by emitting the air contaminants listed in paragraph 45.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 45.1.

## 42. CLAIM NO. 41: CIVIL PENALTIES FOR THE EMISSIONS EVENT ON JULY 26, 2008, AT THE SRU

42.1 According to reports BP submitted to the TCEQ, on July 26, 2008, as a result of several simultaneous equipment and procedural failures, boiler water level in the Claus Waste Heat Boilers was low, which triggered the shutdown of the Claus Units. Low steam level also caused the SRU to trip, reducing process efficiency and sending materials to the flare and incinerators. BP admitted to the release of air contaminants to the atmosphere for 4 hours and 38 minutes, including the following:

Air Contaminant	SRU Flare Quantity in lbs.	SRU Incinerator C and D Quantity in lbs.
Ammonia	8,649.00	0.00
H <sub>2</sub> S	17,361.00	0.00
СО	0.00	3.00
NO <sub>x</sub>	0.00	0.30
SO <sub>2</sub>	0.00	2,510.00
VOCs	0.00	5.00

42.2 In TCEQ investigation No. 709757, the TCEQ determined that several pieces of equipment and processes, as well as operations personnel failed to operate properly. BP reported that personnel and equipment allowed the boiler water level in the Claus Waste Heat Boilers to get below proper operating level, which triggered the automatic shut-down of the Claus Units, which in turn affected other equipment and sections. According to BP, this caused a decrease in the boiler feed water header pressure on the steam drum at the SRU. BP reported that this low steam level caused the SRU to trip and as SRU efficiency

decreased, BP sent materials to the flare. The TCEQ determined that the emissions stemmed from activities which could have been foreseen and avoided.

42.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 46.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 46.1.

#### 43. CLAIM NO. 42: CIVIL PENALTIES FOR THE EMISSIONS EVENT ON AUGUST 9 – 12, 2008, AT THE CFHU

43.1 According to reports BP submitted to the TCEQ, on August 9, 2008, a gasket on a fin fan at the CFHU began leaking. As a result of the leak, BP shut down the Unit and sent materials to the CFHU Flare. BP admitted to the release of air contaminants to the atmosphere for 59 hours and 14 minutes, including the following:

Air Contaminant	CFHU Flare Quantity in lbs.	CFHU Fugitives Quantity in lbs.
H <sub>2</sub> S	48.00	68.00
CO	152.00	0.00
NO <sub>x</sub>	30.00	0.00
SO <sub>2</sub>	4,423.00	0.00
VOCs	230.20	0.00

43.2 In TCEQ investigation No. 725022, the TCEQ determined that the gasket on a plug on the C-108 Fin Fan began leaking. BP reported that the gasket leaked because BP installed two carbon steel gaskets on the incolor plug, thereby sandwiching two different

materials. According to BP, this caused corrosion which led to the leak. BP also reported that after it located the leak, it replaced the incorrect carbon steel gaskets with a compatible gasket. The TCEQ determined that the emissions could have been avoided by good operation practices.

43.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 47.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 47.1.

## 44. CLAIM NO. 43: CIVIL PENALTIES FOR THE EMISSIONS EVENT ON AUGUST 20, 2008, AT THE SRU

44.1 According to reports BP submitted to the TCEQ, on August 20, 2008, a plugged tap on a flow transmitter in the SRU led to materials being sent to the SRU Incinerator. BP admitted to the release of air contaminants to the atmosphere for 2 hours and 7 minutes, including the following:

Air Contaminant	Quantity in lbs.
СО	1.00
NO <sub>x</sub>	0.12
$SO_2$	1,032.00

44.2 In TCEQ investigation No. 721233, the TCEQ determined that a flow indicator on the D Sulfur Train began giving inaccurate readings. BP reported that the inaccurate readings caused the control valves on the D Sulfur Train to cycle between air-

rich and air-deficient, which eventually led to the release of materials to the SRU Incinerator. According to BP, a plugged tap on the flow transmitter caused the inaccurate flow indicator readings. The TCEQ determined that the plugged tap could have been prevented by better operation.

44.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 48.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 48.1.

## 45. CLAIM NO. 44: CIVIL PENALTIES FOR THE EMISSIONS EVENT ON SEPTEMBER 5, 2008, AT THE RHU

45.1 According to reports BP submitted to the TCEQ, on September 5, 2008, a blocked vapor outlet from a drum to the VRU caused the pressure inside the drum to increase. The pressure increase caused the relief valve to open and vent materials to the CFHU Flare. BP admitted to the release of air contaminants to the atmosphere for 2 hours and 50 minutes, including the following:

Air Contaminants	Quantity in lbs.
СО	1,060.00
$H_2S$	122.00
NO <sub>x</sub>	208.00
SO <sub>2</sub>	11,237.00
VOCs	876.00

- 45.2 In TCEQ investigation No. 708111, the TCEQ determined that a blockage in the mechanical control valve on the outlet of Drum 306-F to the VRU caused the pressure inside Drum 306-F to increase. BP reported that this increased pressure caused the relief valve to lift and vent materials to the CFHU Flare. According to BP, the blockage in the control valve was caused by a buildup of sludge and scale in the valve. The TCEQ determined that BP failed to prevent the blockage in the control valve.
- 45.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 49.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 49.1.

## 46. CLAIM NO. 45: CIVIL PENALTIES FOR THE EMISSIONS EVENT ON SEPTEMBER 7, 2008, AT PIPESTILL 3A

46.1 According to reports submitted by BP to the TCEQ, on September 7, 2008, while Pipestill 3A was in the process of a routine shutdown of the VRU, a rapid temperature decrease caused the system to over-pressure. In order to relieve the pressure, BP vented materials to Flare No. 3. BP admitted to the release of air contaminants to the atmosphere for 2 hours and 45 minutes, including the following:

Air Contaminant	Quantity in lbs.
СО	97.40
H <sub>2</sub> S	30.00
NO <sub>x</sub>	19.00
$SO_2$	2,756.00
VOCs	162.50

- 46.2 In TCEQ investigation No. 709511, the TCEQ determined that during a routine shutdown of the VRU in Pipestill 3A, the temperature within the VRU rapidly decreased. BP reported that the rapid temperature decrease caused the system to overpressure. According to BP, in an effort to depressurize the system, BP vented materials to Flare No. 3. BP reported that the rapid temperature decrease in the VRU was caused by BP's attempt to switch the reboiler feed from heavy virgin gas to diesel and that no diesel was available for the VRU at the time. The TCEQ determined that the event could have been avoided by proper operation practices.
- 46.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 50.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 50.1.

## 47. CLAIM NO. 46: CIVIL PENALTIES FOR THE EMISSIONS EVENT ON SEPTEMBER 7, 2008, AT THE TANK FARM

47.1 According to reports submitted by BP to the TCEQ, on September 7, 2008, the floating roof of Tank 561 failed when BP diverted materials with higher vapor pressure

to Tank 561 during the upset event at Pipestill 3A, described in section 50 above. BP admitted to the release of air contaminants to the atmosphere for 6 hours, including the following:

Air Contaminant	Quantity in lbs.
H <sub>2</sub> S	4,239.70
VOCs	13,138.66

47.2 In TCEQ investigation No. 710020, the TCEQ determined that during the event described in section 50 above, BP diverted materials from Pipestill 3A to the Tank Farm. BP reported that the appropriate tanks for receiving materials such as those diverted were both unavailable, leaving Tank 561 as the only recipient tank. According to BP, Tank 561 is not intended to store materials with a vapor pressure of 15 psi, such as those sent to it from Pipestill 3A. BP reported that the pressure within Tank 561 exceeded the capabilities of its floating roof and air contaminants escaped through the seal area. The TCEQ determined that this event could have been avoided by proper operation practices.

47.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 51.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 51.1.

## CLAIM NO. 47: CIVIL PENALTIES FOR THE EMISSIONS EVENT ON JANUARY 12, 2009, AT FCCU NO. 3

A7.4 According to reports submitted by BP, on January 12, 2009, a pump in FCCU No. 3, went out of service. BP operations eventually started the spare pump, but not before the unit sent material to Flare No. 3. BP admitted to the release of air contaminants to the atmosphere for 14 hours and 5 minutes, including the following:

Air Contaminant	Quantity in lbs.
$SO_2$	3,205.73
VOCs	850.18

- 47.5 In TCEQ investigation No. 738140, the TCEQ determined that during start up of FCCU No. 3, a wear ring in Pump 534-JA broke, putting it out of service. BP reported that it attempted to start the spare pump, however it failed to start because of sediment in the pump. According to BP, it eventually started the spare pump, but not before a relief valve opened to vent material to Flare No. 3. BP reported that the spare pump then had to be shut down because of a seal failure. The TCEQ determined that the event could have been avoided by proper maintenance practices.
- 47.6 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 52.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 52.1.

## 48. CLAIM NO. 48: CIVIL PENALTIES FOR EMISSIONS EVENT ON JANUARY 13, 2009, AT FCCU NO. 3

48.1 According to reports submitted by BP, on January 13, 2009, low liquid level in Drum 508-F caused higher than normal vibration in Pump 534-JA, which caused a pipe nipple on the suction line of the pump to crack. BP operations shut down the pump and relieved materials to Flare No. 3. BP admitted to the release of air contaminants to the atmosphere for 8 hours and 40 minutes, including the following:

Air Contaminant	Flare No. 3 Quantity in lbs.	FCCU No. 3 Fugitives Quantity in lbs.
VOCs	11,300.38	8.30
H <sub>2</sub> S	174.35	0.20
СО	5,248.31	0.00
$NO_X$	1,029.97	0.00
$SO_2$	16,065.09	0.00

48.2 In TCEQ investigation No. 738259, the TCEQ determined that following the failure of Pump 534-JA described in paragraph 52.2 above, BP repaired the pump and returned it to service on January 13, 2009. BP reported that low liquid levels in Drum 508-F caused cavitations and higher than normal vibrations in Pump 534-JA. According to BP, the vibrations caused a pipe nipple on the suction line of Pump 534-JA to crack. BP reported that the cracked nipple caused Pump 534-JA to shut down and materials released to Flare No. 3. TCEQ determined that the event could have been avoided by proper operation practices.

48.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 53.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 53.1.

# 49. CLAIM 49: CIVIL PENALTIES FOR EMISSIONS EVENT ON JANUARY 16, 2009, AT PIPESTILL 3A

49.1 According to reports submitted by BP, on January 16, 2009, holes in steam ejectors in a vacuum tower at Pipestill 3A caused a loss of vacuum in the system, leading to an increase in pressure and a release of materials to Flare No. 3. BP admitted to the release of air contaminants to the atmosphere for 9 hours, including the following:

Air Contaminant	Quantity in lbs.
VOCs	269.50
СО	137.00
H <sub>2</sub> S	49.00
NO <sub>X</sub>	27.00
SO <sub>2</sub>	4,505.00

49.2 In TCEQ investigation No. 738357, the TCEQ determined that steam ejectors in a vacuum tower developed holes in them. BP reported that the steam ejectors use high-pressure steam to compress vapors or gases and to create a vacuum within the chamber. According to BP, the holes in the ejectors caused a loss of vacuum, which led to increased pressure within the chamber and a release of materials to Flare No. 3. The TCEQ determined that this event could have been avoided by proper maintenance practices.

49.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 54.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 54.1.

## 50. CLAIM NO. 50: CIVIL PENALTIES FOR EMISSIONS EVENT ON JANUARY 18, 2009, AT THE SRU

50.1 According to reports submitted by BP, on January 18, 2009, the SRU received a surge of H<sub>2</sub>S, which caused H<sub>2</sub>S flow to the incinerator to increase and consequently led to an increase in SO<sub>2</sub> emissions. BP admitted to the release of air contaminants to the atmosphere for 3 hours and 24 minutes, including the following:

Air Contaminant	Quantity in lbs.
СО	1.00
$NO_X$	0.10
SO <sub>2</sub>	4,884.00

50.2 In TCEQ investigation No. 741081, the TCEQ determined that a plugged baffle in a drum at the RHU caused a surge of H<sub>2</sub>S to the SRU SCOT Absorber. BP reported that hydrocarbons in the H<sub>2</sub>S prevented the Absorber from absorbing the H<sub>2</sub>S, which caused an increase in the flow of H<sub>2</sub>S to the SRU Incinerator, and emissions of SO<sub>2</sub>. According to BP, the plugged baffle in the drum at the RHU was caused by infrequent use of the drum. The TCEQ determined that the event could have been avoided by better operation practices.

50.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 55.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 55.1.

## 51. CLAIM NO. 51: CIVIL PENALTIES FOR EMISSIONS EVENT ON JANUARY 29, 2009, AT THE SRU

51.1 According to reports submitted by BP, on January 29, 2009, an isolation valve closed, causing the C and D Sulfur Trains to shut down. BP then routed material to the SRU Flare. BP admitted to the release of air contaminants to the atmosphere for 1 hour and 3 minutes, including the following:

Air Contaminant	SRU Flare Quantity in lbs.	SRU Incinerator Quantity in lbs.
H <sub>2</sub> S	452.06	0.00
$NO_X$	7.00	0.00
SO <sub>2</sub>	41,822.42	127.00

- 51.2 In TCEQ investigation No. 736930, the TCEQ determined that BP incorrectly installed air lines on an isolation valve actuator. BP reported that the incorrectly installed air lines caused the isolation valve to close, which caused the C and D Sulfur Trains to trip on the high pressure. The TCEQ determined that the event could have been avoided by better operation practices.
- 51.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 56.1 without authorization. Pursuant to Texas Water Code

§ 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 56.1.

#### 52. CLAIM NO. 52: CIVIL PENALTIES FOR EMISSIONS EVENT ON FEBRUARY 4, 2009, AT SRU

52.1 According to reports submitted by BP, on February 4, 2009, the SRU Incinerator began experiencing high SO<sub>2</sub> levels which led the unit to lose process ratio control causing a release of materials through the Incinerator. BP admitted to the release of air contaminants to the atmosphere for 7 hours and 45 minutes, including the following:

Air Contaminant	Quantity in lbs.
СО	1.00
$NO_X$	0.10
SO <sub>2</sub>	3,240.12

52.2 In investigation No. 740305, the TCEQ determined that the SRU Incinerator began emitting high levels of SO<sub>2</sub>. BP reported that high levels of hydrocarbons reduced incinerator efficiency by consuming more oxygen, thereby causing the increased level of SO<sub>2</sub>. According to BP, its investigation of the event determined that a plugged vapor recovery accumulator in the RHU caused the oil level in the accumulator to become too high. BP reported that the high level of oil hindered separation of the oil, and the hydrocarbons then fed into the incinerator at a level at which it could not operate efficiently. The TCEQ determined that the event could have been avoided by better maintenance.

52.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 57.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 57.1.

## 53. CLAIM NO. 53: CIVIL PENALTIES FOR EMISSIONS EVENT ON FEBRUARY 27, 2009, AT THE SRU

53.1 According to reports submitted by BP, on February 27, 2009, the D Sulfur Train shut down which sent material to the SRU Incinerator. BP admitted to the release of air contaminants into the atmosphere for 12 hours and 38 minutes, including the following:

Air Contaminant	Quantity in lbs.
$SO_2$	2,000.00
СО	0.50
$NO_X$	0.10

53.2 In TCEQ investigation No. 741981, the TCEQ determined that the D Sulfur Train shut down because of high pressure at the front of the process. BP reported that the high pressure was caused by a build-up of material in the last sulfur condenser which was caused by lack of drainage. According to BP, the sulfur condenser should remove elemental sulfur from the process, however, a tubing failure prevented the removal of sulfur and caused the increase in pressure in the process. The TCEQ determined that the event could have been avoided through proper operational practices.

53.3 BP violated TCAA § 382.085 and Permit 47256 by emitting the air contaminants listed in paragraph 58.1 without authorization. Pursuant to Texas Water Code § 7.102, the State requests a civil penalty within the statutory range for each day of each release of each contaminant listed in paragraph 58.1.

#### 54. CLAIM NO. 54: REQUEST FOR TEMPORARY AND PERMANENT INJUNCTIVE RELIEF

As described above, BP has repeatedly failed to comply with the laws concerning the reporting of Emissions Events. The State, therefore, requests a temporary injunction as follows:

#### **Emissions Event Reporting**

- 54.1 BP shall be immediately enjoined from violating 30 TAC § 101.201(a)(1)(B), 30 TAC § 101.201(f), 30 TAC § 101.201(b), 30 TAC § 101.211(a), and 30 TAC § 101.211(b).
- 54.2 No later than 30 Days after the Effective Date, BP shall submit to the TCEQ Executive Director for approval a written proposal (the "Reporting Proposal") outlining in detail the steps and procedures BP will implement to insure that it will timely and properly submit required Emissions Event, Startup, Shut-down and Maintenance Reports and to ensure that it will respond timely and fully to the TCEQ's requests for information. The Reporting Proposal shall describe, at a minimum,
  - A. Any procedures and training BP currently has in place to address Emissions Event, Startup, Shut-down and Maintenance reporting, including a copy of BP's

current reporting policies and procedures and/or reporting training manuals or

guides;

B. New procedures and training BP will develop to address Emissions Event,

Startup, Shut-down and Maintenance reporting; and

C. Categories of personnel that will be assigned to identify and report Emissions

Events and a list of all personnel who are currently responsible for reporting

Emissions Events, their title, job responsibilities, and manager.

54.3 The Reporting Proposal shall include a schedule for complete implementation

no later than 30 Days after TCEQ Executive Director approval of the Reporting Proposal.

The TCEQ may require, and BP shall provide no later than 10 Days after any request,

additional information which the TCEQ deems necessary for the evaluation of the

Reporting Proposal. BP shall begin implementation of the Reporting Proposal immediately

upon TCEQ Executive Director approval.

**Emissions Event Review** 

54.4 BP shall immediately implement all measures necessary to minimize the

likelihood of Emissions Events at the Refinery including but not limited to the emission of

air contaminants not authorized by TCEQ Air Permit 47256, Permit 2231, and Permit 2612

or in excess of emissions limits specified in these permits.

54.5 No later than 30 Days after the Effective Date of the Injunction, BP shall

submit to the TCEQ Executive Director for approval the name of a third-party consultant

(the "Consultant") to plan and perform an Emissions Events Review ("EE Review") as

described in paragraph 59.7 below. To be approved, the Consultant must agree to provide deposition and trial testimony in connection with the EE Review. The TCEQ may require, and BP shall provide no later than 10 Days after any request, additional information which the TCEQ deems necessary for the evaluation of the Consultant.

54.6 No later than 30 Days after the TCEQ Executive Director's approval of the Consultant, BP shall submit to the TCEQ for approval a written EE Review Proposal prepared by the Consultant. The proposal for the EE Review shall include, at a minimum: (1) a detailed description of how each element of the EE Review, set forth in paragraph 59.7 below, will be implemented and completed and (2) a detailed schedule demonstrating how BP will complete the EE Review on or before the deadline in paragraph 59.8. The TCEQ may require, and BP shall provide no later than 10 Days after any request, additional information which the TCEQ deems necessary for the evaluation of the EE Review Proposal.

54.7 The EE Review shall include, but not be limited to:

A. A full review of all Emissions Events that occurred after July 27, 2005, and those Emissions Events occurring up to and including the date on which the TCEQ Executive Director approves the Consultant. This includes all of the Emissions Events described above and those that occur after the filing of this petition to the date the TCEQ approves the Consultant. The review shall include, but not be limited to:

- 1. A detailed explanation of the causes of each of the Emissions Events, including an estimate of the costs of taking preventive measures that would have avoided each Emissions Event;
- 2. A review of any corrective actions and the cost of such corrective actions taken by BP in response to each Emissions Event, including BP's actions taken to rectify failures to report or respond to requests for information concerning the Emissions Event;
- 3. An assessment of the effectiveness of any corrective action taken by BP in response to each Emissions Event;
- 4. For each Excessive Emissions Event, a review of BP's submitted CAP and BP's actions to comply with the proposed CAP;
- 5. A list of proposed additional corrective actions needed to address the root cause of each Emissions Event and to prevent a recurrence of the Emissions Event;
- 6. A list of needed corrective actions for BP to comply with the requirements of 30 TAC § 101.201 for each Emissions Event; and
- 7. An analysis of the Emissions Events as a whole to identify systemic problems that should be addressed on a refinery-wide basis to prevent similar Emissions Events in the future. This analysis shall include but not be limited to:
  - (a) a list of common causes for the Emissions Events;

- (b) identifying methods to minimize the potential for Emissions Events;
- (c) identifying back-up procedures, equipment and controls to minimize air contaminant emissions in excess of permit limits and applicable standards, including the adequacy of existing:
  - (i) routine operating and maintenance procedures,
  - (ii) shut-down control systems,
  - (iii) procedures to track the vulnerability of aging equipment, and
  - (iv) on-site availability of spare equipment components.
- B. A review and proposal for modifications to preventative maintenance, training, and record keeping programs to prevent Emissions Events.
- C. A description of any other system improvements which would further minimize the possibility of Emissions Events.
- D. Flow diagrams and process descriptions of all refinery operations, indicating all major equipment, control valves, instrumentation, and remaining life of each critical component.
- E. Any other recommendations, reviews, or proposals the Consultant believes are necessary to reduce the number of Emissions Events at the Refinery.
- 54.8 No later than 14 Days after the TCEQ Executive Director's approval of the EE Review Proposal, BP shall have the Consultant begin the EE Review and perform its requirements on the approved schedule. BP shall fully complete the requirements of the EE

Review no later than 180 Days after the Effective Date of the Injunction. BP shall submit to the State as it is generated: all correspondence between BP, it's agents and assigns, and the Consultant, data, interim reports, findings, conclusions, and other information as requested by the TCEQ.

54.9 BP shall submit to the TCEQ a final EE Review Report in accordance with the schedule in the approved EE Review Proposal. In addition to the requirements specified above, the report shall include a detailed description and cost estimates for all of the recommendations contained in the EE Review, including any operational or physical modifications to the Refinery that, in the Consultant's sole independent engineering judgment, are necessary to reduce the number of Emissions Events at the Refinery. The TCEQ may require, and BP shall provide no later than 10 Days after any request, additional information which the TCEQ deems necessary for the evaluation of the EE Review Report.

54.10 No later than 30 Days after the TCEQ Executive Director's approval of the EE Review Report, BP shall submit an EE Review Implementation Plan to the TCEQ for TCEQ Executive Director Approval. The EE Review Implementation Plan shall set forth the steps that BP will take to reduce the number of Emissions Events at the Refinery. The EE Review Implementation Plan shall adopt all of the recommendations contained in the EE Review Report; BP may, however, propose alternate recommendations for TCEQ Executive Director approval provided BP provides detailed information on why the alternate recommendation will result in fewer Emissions Events than the Consultant's recommendation in the EE Review Report. The TCEQ may require, and BP shall provide

no later than 10 Days after any request, additional information which the TCEQ deems necessary for the evaluation of the EE Review Report.

54.11 No later than 30 Days after the TCEQ Executive Director's approval of the EE Review Implementation Plan, BP shall begin expeditious implementation of the approved recommendations contained in the EE Review Implementation Plan. No later than 60 Days after the implementation of each recommendation, BP shall make written certification to the TCEQ that the recommendations have been implemented and are operating as designed. BP shall maintain records sufficient to document compliance with the requirements of this paragraph onsite at the Refinery.

#### **Air Monitoring**

54.12 No later than 30 Days after the Effective Date of the Injunction, BP shall submit to the TCEQ Executive Director for approval the name of a third-party consultant (the "Monitoring Consultant") to plan and conduct air emission monitoring as described below. The Monitoring Consultant shall have prior experience in ambient monitoring programs for VOCs, ozone, H<sub>2</sub>S, SO<sub>2</sub>, NO<sub>x</sub>, fine particulate matter (PM<sub>2.5</sub>), and standard meteorological parameters. All monitoring data required by the Injunction shall be collected, handled, transferred, and validated by the Monitoring Consultant. To be approved, the Monitoring Consultant must agree to provide deposition and trial testimony in connection with the monitoring required by the Injunction. The TCEQ may require, and BP shall provide no later than 10 Days after any request, additional information which the TCEQ deems necessary for the evaluation of the Monitoring Consultant.

- 54.13 No later than 60 Days after the TCEQ Executive Director's approval of the Monitoring Consultant, BP shall submit to the TCEQ for approval a written Monitoring Program Proposal prepared by the Monitoring Consultant. The Monitoring Program Proposal shall be structured to identify and confirm future emissions of air contaminants from the Refinery, to assess and minimize potential off-site impacts of air contaminant releases from the Refinery, and to provide data to be used to modify operating processes and procedures during startup, shut-down, and maintenance and any other activity to reduce emissions. The Monitoring Program Proposal shall include, at a minimum:
  - A. A detailed description of how each element of the Monitoring Program set forth in paragraph 59.15 below will be performed;
  - B. A detailed schedule demonstrating how BP will have the Monitoring Program fully operational on or before the deadline in paragraph 59.16; and
  - C. A Quality Assurance Project Plan ("QAPP") in EPA QA/R-5 format which shall establish data quality objectives, site locations, monitoring hardware, configuration, calibration, operation, maintenance, acceptance criteria, corrective action measures, data processing, reporting, and validation protocols as well as all audit activities. A minimum data completeness of 85 percent shall be required in the QAPP for all parameters for each month at each site.
- 54.14 The TCEQ may require, and BP shall provide no later than 10 Days after any request, additional information which the TCEQ deems necessary for the evaluation of the Monitoring Program Proposal.

- 54.15 The Monitoring Program shall include but not be limited to:
- A. Monitors at a minimum of two off-site monitoring locations as follows:
  - 1. At the first location, BP shall install, operate, and maintain equipment capable of monitoring speciated C2 through C12 VOCs (including but not limited to pentane, benzene, acetylene, ethylene, propylene, 1,3-butadiene, butenes, isopentane, toluene, xylenes, and hexane) on an hourly basis and monitoring for wind speed, wind direction, temperature, PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> on a continuous basis. These monitors shall be located at the existing monitor station at 2516 ½ Texas Ave., Texas City, Texas, or an alternative location within the predominant downwind direction. BP shall electronically report to the TCEQ the data from this equipment in accordance with paragraph 59.15.G.1.
  - 2. At the second location, BP shall install, operate, and maintain equipment capable of monitoring ozone, wind speed, wind direction and temperature on a continuous basis. The location shall be predominantly downwind of the Refinery and where there are no major NO<sub>x</sub> sources between the monitoring location and the Refinery. This site should be in or around Dickinson, Texas. Resultant wind direction, resultant wind speed, wind speed average, standard deviation of wind direction, and maximum wind gust shall be calculated from on-site measurements. BP shall

electronically report to the TCEQ the data from this equipment in accordance with paragraph 59.15.G.1.

- 3. Once every six months beginning six months after the date the first monitor is operational, BP shall perform and report to the TCEQ the results of a biannual audit of all off-site monitors for the prior six months. The biannual audit report shall include findings, a review of corrective measures taken or proposed to be taken to correct any problems identified by the audit, implementation dates for corrective action, and the impact on reported data of problems cited in the audit. BP shall submit the biannual audit report to the TCEQ in accordance with paragraph 59.15.G.2 following 45 Days after each deadline to perform the audit.
- 4. All off-site monitoring locations must be pre-approved by the TCEQ.
- B. Monitors at a minimum of three locations in the Refinery along its fenceline as follows:
  - 1. BP shall install, operate, and maintain equipment at three sites on the Refinery's fenceline including one site along the predominant upwind (southeast) fenceline and two sites along the north fenceline. All fenceline monitoring locations must be pre-approved by the TCEQ.
  - 2. The fenceline monitors shall collect time integrated values for VOCs including at a minimum pentane, hexane, benzene, and toluene at least every 20 minutes with a minimum detection limit no greater than 0.5 parts per

billion (ppb). The fenceline monitors shall also collect wind speed, wind direction, H<sub>2</sub>S (measured as total reduced sulfur), SO<sub>2</sub>, and temperature on a continuous basis. Resultant wind direction, resultant wind speed, wind speed average, standard deviation of wind direction, and maximum wind gust shall be calculated from on-site measurements. BP shall electronically report to the TCEQ the data from this equipment in accordance with paragraph 59.15.G.1.

- 3. Once every six months beginning six months after the date the first monitor is operational, BP shall perform and report to the TCEQ the results of a biannual audit of all fenceline monitors for the prior six months. The biannual audit report shall include findings, a review of corrective measures taken or proposed to be taken to correct any problems identified by the audit, implementation dates for corrective action, and the impact on reported data of problems cited in the audit. BP shall submit the biannual audit report to the TCEQ in accordance with paragraph 59.15.G.2 following 45 Days after each deadline to perform the audit.
- C. BP shall install, maintain, and operate an automatic notification system capable of producing an automatic electronic notification to BP personnel at the Refinery every time a monitored contaminant from any air monitor exceeds a predetermined trigger level. BP shall propose for TCEO Executive Director

approval notification trigger levels for all of the contaminants monitored by off-site and fenceline monitors. BP may thereafter propose for TCEQ Executive Director approval alterative notification trigger levels based upon the results of ongoing monitoring. BP shall include a list of the exceedances for the reporting period and corrective actions taken or planned by BP to address each exceedance in the next report submitted to the TCEQ pursuit to paragraph 59.15.G.2.

- D. BP shall perform a follow-up and probable cause investigation every time a monitored contaminant from any air monitor exceeds a predetermined investigation trigger level. BP shall propose, for TCEQ Executive Director approval, investigation trigger levels for all of the contaminants monitored by off-site and fenceline monitors. BP shall include a report of the exceedance, the investigation into its cause, and corrective actions taken or planned by BP to address each exceedance in the next report following the exceedance submitted to the TCEQ pursuit to paragraph 59.15.G.2. However, if the exceedance occurs within 30 Days of the end of a reporting period, BP may defer the report of planned corrective actions to the next reporting period.
- E. BP shall install, operate, and maintain a video camera that provides a high resolution picture of the majority of the Refinery including all flares at one of the north fenceline monitoring sites. BP shall retain on-site a minimum of the last ten years of recorded images. BP shall collect the video camera images and transmit

them to the TCEQ within a reasonable amount of time, which must be agreed upon by the TCEQ Executive Director, through internet streaming or other equivalent method. The location of the video camera and pre-set default views must be preapproved by the TCEQ Executive Director.

- F. At least once a quarter, BP shall perform refinery-wide monitoring with a passive IR camera capable of imaging VOCs of process units, tanks, and elevated piping that have the potential to leak VOCs and are not otherwise monitored under BP's Leak Detection and Repair program, which is required by state and federal regulations. BP shall include the survey dates, times, areas inspected, findings, and corrective actions taken or planned by BP to address each finding in the next monthly report submitted to the TCEQ in accordance with paragraph 59.15.G.2 following 45 Days after the monitoring event.
- G. Monitoring Program reporting to the TCEQ as follows:
  - 1. BP through the Monitoring Consultant shall electronically report all monitoring data from the off-site and fenceline monitors into the TCEQ's LEADS systems within 15 minutes after initial data collection. The Monitoring Consultant shall conduct a validation review of the data and reload data into LEADS as necessary to qualify and enter LEADS validation notes for the data no later than one month after acquisition.
  - 2. BP shall submit a Monitoring Program Report to the TCEQ on the 15<sup>th</sup> day of each month following the TCEQ's approval of the Monitoring

Program Proposal. The Monitoring Program Report shall include documentation of all actions taken during the previous 30 Days to implement the Monitoring Program. After the Monitoring Program is operational the Monitoring Program Report shall include:

- (a) the status of all monitoring equipment listing any downtime and maintenance;
- (b) quality assurance data as set forth in the approved QAPP. At a minimum the quality assurance data shall include information regarding instrument calibrations, daily calibration checks, second source standard challenges, zero or blank checks, audits, data limitations, and an explanation of any data BP has invalidated;
- (c) audit results for the off-site and fenceline monitors as set forth in paragraph 59.15.A.3 and B.3;
- (d) a list of all exceedances of automatic notification trigger levels results as described in paragraph 59.15.C;
- (e) a report of the exceedance and the investigation into its cause for all exceedances of investigation trigger levels results as described in paragraph 59.15.D; and
- (f) quarterly IR camera investigation results as described in paragraph 59.15.F.

54.16 No later than 14 Days after the TCEQ Executive Director's approval of the Monitoring Program Plan, BP shall have the Consultant begin implementation of the Monitoring Program and perform its requirements on the approved schedule. BP shall have all elements of the Monitoring Program fully operational no later than 180 Days after the TCEQ Executive Director's approval of the Monitoring Program Plan. BP shall submit the following to the State as it is generated: all correspondence between BP, it's agents and

assigns, and the Monitoring Consultant, data, interim reports, findings, conclusions, and other information as requested by the TCEQ.

54.17 BP shall keep all components of the Monitoring Program fully operational through regular maintenance, repair, and replacement.

#### 55. CLAIM NO. 55: ATTORNEY'S FEES AND COSTS

55.1 Pursuant to Texas Water Code § 7.108, the State asks this Court to award the State its reasonable attorney's fees, court costs and reasonable investigative costs incurred in relation to this proceeding. If there is an appeal to the Court of Appeals or to the Supreme Court, the State seeks its additional reasonable attorney's fees and court costs on behalf of the State.

#### **PRAYER**

The State of Texas requests relief against BP Products North America Inc. as follows:

- 1. That it be cited to appear and answer herein;
- That upon notice and hearing, a temporary injunction be granted against BP
   Products North America Inc. as requested above;
- 3. That upon final trial of this cause, the State have a money judgment against BP

  Products North America Inc. for civil penalties, as stated above, plus interest at the legal rate from the date of judgment until fully paid;

- 4. That upon final trial of this cause, permanent injunctive relief be granted as requested above;
- 5. That upon final trial of this cause, the State recover a money judgment from BP Products North America Inc. for reasonable attorney's fees, reasonable investigative costs, and all of its court costs incurred in this action, plus interest at the legal rate from the date of judgment until fully paid; and
- 6. That upon final trial of this cause, the State be granted all other relief, general and special, at law and in equity, to which it may show itself justly entitled.

Respectfully submitted,

GREG ABBOTT Attorney General of Texas

C. ANDREW WEBER
First Assistant Attorney General

DAVID S. MORALES
Deputy Attorney General for Civil Litigation

WILLIAM J. COBB III Special Assistant and Senior Counsel to the Attorney General

BARBARA B. DEANE Chief, Environmental Protection and Administrative Law Division

## DAVID PREISTER Chief, Environmental Protection Section

JANE E. ATWOOD

Assistant Attorney General

State Bar No. 00796144

Office of the Attorney General of Texas

Environmental Protection and

Administrative Law Division

P. O. Box 12548, Capitol Station

Austin, Texas 78711-2548

(512) 463-2012

(512) 320-0911 (Facsimile)

ATTORNEYS FOR THE STATE OF TEXAS

## **CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of the foregoing Plaintiff's First Amended Original Petition and Application for Temporary and Permanent Injunctions has been served upon all parties in this cause by Case File Express e-file and at the addresses shown below by First Class U.S. Mail, on June 23, 2009.

Jane E. atwood

J. Gregory Copeland Matthew L. Kuryla Baker Botts, L.L.P. One Shell Plaza 910 Louisiana Houston, TX 77002-4995 Telephone: (713) 229-1234 Telecopier: (713) 229-2730

Kevin M. Sadler Baker Botts L.L.P. 98 San Jacinto Blvd., Suite 1500 Austin, TX 78701

Telephone: (512) 322-2500 Telecopier: (512) 322-2501

ATTORNEYS FOR DEFENDANT

# STATE OF TEXAS V. BP PRODUCTS NORTH AMERICA, INC.

ATTACHMENTS TO PLAINTIFF'S FIRST AMENDED ORIGINAL PETITION

AFFIDAVIT OF HARVEY WILLIAMS

AFFIDAVIT OF RICKEY PICKENS-WILSON

AFFIDAVIT OF LAURA BURNETT

AGREED ORDER IN TCEQ DOCKET NO. 2005-0224-AIR-E

#### AFFIDAVIT

STATE OF TEXAS	}
	}
COUNTY OF HARRIS	}

Before me, the undersigned notary, on this day personally appeared Harvey Williams, a person whose identity is known to me. After I administered an oath to him, upon oath he said:

"My name is Harvey Williams. I am over the age of eighteen years and of sound mind, capable of making this Affidavit, and personally acquainted with the facts herein.

I am employed by the Texas Commission on Environmental Quality as the Emission Events Program Coordinator for the Houston regional office of the Texas Commission on Environmental Quality. In this capacity, I have the authority to make this Affidavit. Furthermore, in this capacity, I am familiar with the BP Products North America Inc. refining facility located at 2401 5th Avenue South, Texas City, Galveston County, Texas, and the investigations referenced in the foregoing Plaintiff's First Amended Original Petition and Application for Temporary and Permanent Injunctions.

I have read the foregoing Plaintiff's First Amended Original Petition and Application for Temporary and Permanent Injunctions. The facts alleged in paragraphs: 6.1, 6.2, 6.3, 6.5; 7.1, 7.2; 8.1, 8.2; 15.1, 15.2, 15.3, and 15.4 of the petition are within my personal knowledge and are true and correct."

Harvey Williams

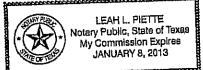
Emission Events Program Coordinator

Texas Commission on Environmental Quality

SUBSCRIBED AND SWORN TO BEFORE ME on

Jime 22

\_, 2009, to certify which witness my hand and official seal.



Notary-Public in and for the State of Texas

My commission

expires: *Minuscy* 8, 2013

#### AFFIDAVIT

STATE OF TEXAS	
	3
COUNTY OF HARRIS	)

Before me, the undersigned notary, on this day personally appeared Rickey Pickens-Wilson, a person whose identity is known to me. After I administered an oath to him, upon oath he said:

"My name is Rickey Pickens-Wilson. I am over the age of eighteen years and of sound mind, capable of making this Affidavit, and personally acquainted with the facts herein.

I am employed by the Texas Commission on Environmental Quality as an investigator in the Houston regional office of the Texas Commission on Environmental Quality. In this capacity, I have the authority to make this Affidavit. Furthermore, in this capacity, I am familiar with the BP North America Inc. refining facility located at 2401 5th Avenue South, Texas City, Galveston County, Texas, and the investigations I made which are referenced in the foregoing Plaintiff's First Amended Original Petition and Application for Temporary and Permanent Injunctions.

I have read the foregoing Plaintiff's First Amended Original Petition and Application for Temporary and Permanent Injunctions. The facts alleged in paragraphs: 9.1, 9.2; 10.1, 10.2; 11.1, 11.2; 12.1, 12.2; 16.1, 16.2, 16.3, 16.4; 17.1, 17.2; 18.1, 18.2, 18.3, 18.4; 19.1, 19.2, 19.3; 20.1, 20.2, 20.3; 21.1, 21.2, 21.3; 22.1, 22.2, 22.3; 33.1, 33.2; 34.1, 34.2, 34.3; 41.1, 41.2, 41.3; 42.1, 42.2; 43.1, 43.2; 45.1, 45.2; 46.1, and 46.2; of the petition are within my personal knowledge and are true and correct."

Rickey Pickens-Wilson

Investigator

Texas Commission on Environmental Quality

SUBSCRIBED AND SWORN TO BEFORE ME on

2, 2009, to certify which witness my hand and official seal.

LEAH L. PIETTE

Notary Public, State of Texas
My Commission Expires

JANUARY 8, 2013

Notary Public in and for the State of Texas

My commission

expires: January 8,2031

Plaintiff's First Amended Original Petition and Application for Temporary and Permanent Injunctions

## **AFFIDAVIT**

STATE OF TEXAS	}
	}
COUNTY OF HARRIS	}

Before me, the undersigned notary, on this day personally appeared Laura Burnett, a person whose identity is known to me. After I administered an oath to her, upon oath she said:

"My name is Laura Burnett. I am over the age of eighteen years and of sound mind, capable of making this Affidavit, and personally acquainted with the facts herein.

I am employed by the Texas Commission on Environmental Quality as an Air Section Team Leader. In this capacity, I have the authority to make this Affidavit. Furthermore, in this capacity, I am familiar with the BP Products North America Inc. refining facility located at 2401 5<sup>th</sup> Avenue South, Texas City, Galveston County, Texas, and the investigations referenced in the foregoing Plaintiff's First Amended Original Petition and Application for Temporary and Permanent Injunctions.

I have read the foregoing Plaintiff's First Amended Original Petition and Application for Temporary and Permanent Injunctions. The facts alleged in paragraphs: 13.1, 13.2; 14.1, 14.2, 14.3, 14.4, 14.5; 23.1, 23.2, 23.3; 24.1, 24.2, 24.3; 25.1, 25.2, 25.3; 26.1, 26.2, 26.3; 27.1, 27.2, 27.3, 27.4; 28.1, 28.2, 28.3; 29.1, 29.2; 30.1, 30.2, 30.3; 31.1, 31.2, 31.3; 32.1, 32.2; 35.1, 35.2; 36.1, 36.2; 37.1, 37.2; 38.1, 38.2; 39.1, 39.2; 52.1, 52.2; 53.1, 53.2; 54.1, 54.2; 55.1, 55.2; 56.1, 56.2; 57.1, 57.2; 58.1, and 58.2 of the First Amended Original Petition are within my personal knowledge and are true and correct."

Laura Burnett

Air Section Team Leader
Texas Commission on Environmental Quality

SUBSCRIBED AND SWORN TO BEFORE ME on

\_, 2009, to certify which witness my hand and official seal.

LEAH L. PIETTE
Notary Public, State of Texas
My Commission Expires
JANUARY 8, 2013

Notary Public in and for the State of Texas

My commission

expires: brush 8, 2013

# Texas Commission on Environmental Quality



IN THE MATTER OF AN ENFORCEMENT ACTION CONCERNING BP PRODUCTS NORTH AMERICA INC. RN102535077

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TEXAS COMMISSION ON

ENVIRONMENTAL QUALITY

## AGREED ORDER DOCKET NO. 2005-0224-AIR-E

MAY 31 2006 agenda, the Texas Commission on Environmental Quality ("the Commission" or "TCEQ") considered this agreement of the parties, resolving an enforcement action regarding BP Products North America, Inc. ("BP Products") under the authority of TEX. HEALTH & SAFETY CODE ch. 382 and Tex. WATER CODE ch. 7. The Executive Director of the TCEQ, through the Enforcement Division, and BP Products presented this agreement to the Commission.

BP Products understands that it has certain procedural rights at certain points in the enforcement process, including, but not limited to, the right to formal notice of violations, notice of an evidentiary hearing, the right to an evidentiary hearing, and a right to appeal. By entering into this Agreed Order, BP Products agrees to waive all notice and procedural rights.

It is further understood and agreed that this Order represents the complete and fully-integrated settlement of the parties. The provisions of this Agreed Order are deemed severable and, if a court of competent jurisdiction or other appropriate authority deems any provision of this Agreed Order unenforceable, the remaining provisions shall be valid and enforceable. The duties and responsibilities imposed by this Agreed Order are binding upon BP Products.

The Commission makes the following Findings of Fact and Conclusions of Law:

## I. FINDINGS OF FACT

- 1. BP Products owns and operates a petroleum refinery located at 2401 Fifth Avenue South, Texas City, Galveston County, Texas (the "Plant").
- 2. The Plant consists of one or more sources as defined in TEX. HEALTH & SAFETY CODE § 382.003(12).
- 3. During an investigation on October 20, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the Resid Hydrotreating Unit ("RHU") 400 Reactor Train [Emission Point Number ("EPN") 501, Incident 42479]: Sulfur dioxide ("SO<sub>2</sub>-)

emission limit of 0.20 pounds per hour ("lbs/hr"), nitrogen oxide ("NOx") emission limit of 0.80 lbs/hr and carbon monoxide ("CO") emission limit of 0.11 lbs/hr. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. CODE § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.

- 4. During an investigation on October 20, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the RHU 200 Reactor Train (EPN 501, Incident 43416): SO<sub>2</sub> emission limit of 0.20 lbs/hr, NOx emission limit of 0.80 lbs/hr and CO emission limit of 0.11 lbs/hr. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. CODE § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.
- During an investigation on October 20, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the RHU 200 Reactor Train (EPN 501, Incident 42576): SO<sub>2</sub> emission limit of 0.20 lbs/hr, NOx emission limit of 0.80 lbs/hr and CO emission limit of 0.11 lbs/hr. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. CODE § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.
- 6. During an investigation on October 20, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the RHU 200 Reactor Train (EPN 501, Incident 42415): SO<sub>2</sub> emission limit of 0.20 lbs/hr, NOx emission limit of 0.80 lbs/hr and CO emission limit of 0.11 lbs/hr. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 TEX. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 TEX. ADMIN. CODE § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.
- 7. During an investigation on December 15, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the RHU 300 Reactor Train (EPN 501, Incident 44783): SO<sub>2</sub> emission limit of 0.20 lbs/hr, NOx emission limit of 0.80 lbs/hr and CO emission limit of 0.11 lbs/hr. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. CODE § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.
- 8. During an investigation on October 21, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the Sulfur Recovery Unit ("SRU") (EPN 384, Incident 42573): SO<sub>2</sub> emission limit of 161.9 lbs/hr and opacity of zero. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. ADMIN. Code § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. Code § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.

- 9. During an investigation on October 21, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the SRU (EPN 384, Incident 42484): SO<sub>2</sub> emission limit of 161.9 lbs/hr and opacity of zero. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. ADMIN. Code § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. Code § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.
- 10. During an investigation on October 20, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the SRU (EPN 384, Incident 43704): SO<sub>2</sub> emission limit of 161.9 lbs/hr and opacity of zero. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. CODE § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.
- 11. During an investigation on October 21, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the SRU (EPN 384, Incident 42429): SO<sub>2</sub> emission limit of 161.9 lbs/hr and opacity of zero. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. CODE § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.
- 12. During an investigation on August 4, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the Coker Resid De-Asphalting Unit and Cooling Tower (EPN 412, Incident 26814): Volatile organic compounds ("VOC") emission limit of 0.01 lbs/hr. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. CODE § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.
- 13. During an investigation on December 22, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the Ultracracker Flare (EPN 351, Incident 46092): NOx emission limit of 1.76 lbs/hr and SO<sub>2</sub> emission limit of zero and for the Ultraformer Unit (EPN F-160, Incident 46044), VOC emission limit of 21.95 lbs/hr. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. CODE § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.
- 14. During an investigation on June 8, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the Fluid Catalytic Cracking Unit (EPN 334, Incident 15795): VOC emission limit of 55 lbs/hr. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the

demonstrations in 30 TEX. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 TEX. ADMIN. CODE§ 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.

- 15. During an investigation on June 8, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the Fluid Catalytic Cracking Unit (EPN 321, Incident 15810): VOC emission limit of 55 lbs/hr. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. ADMIN. Code § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. Code § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.
- 16. During an investigation on August 4, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the Ultracracker Unit (EPN F-200), Incident 33000): VOC emission limit of 5.48 lbs/hr. Since these emissions could have been foreseen and avoided by good design, operation and maintenance, the emissions do not meet the demonstrations in 30 Tex. Admin. Code § 101.222 and are not subject to an affirmative defense under 30 Tex. Admin. Code § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.
- 17. During an investigation on June 7, 2004, TCEQ staff documented that BP Products failed to comply with the following permitted emission limits for the Aromatics Recovery Unit 2 (EPN 611, Incident 38814): VOC emission limit of 0.36 lbs/hr. Since the final notification for this shutdown event was not submitted to the TCEQ in a timely manner, the emissions do not meet the demonstrations in 30 Tex. ADMIN. Code § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. Code § 101.222(b)(1-11). Emission limits were exceeded as specified in the table below.

## **EMISSION PARAMETER**

	VOCs	SO <sub>2</sub>	NOx	CO	Opacity	Incident	Emission	Date
							Events Period	
EPN No.	lbs	lbs	lbs	lbs	%	No.	hrs:min	mm/dd/yy
501		1,783	21	225		42479	0:41	07/09/04
501		8,452		18		43416	24:49	07/26/04
501		7,076	84	897		42576	4:19	07/12/04
501		3,734	45	473		42415	0:30	07/08/04
501		3,217	25	246		44783	10:11	08/18/04
384		9,475		-	80	42573	22:50	07/12/04
384	·	8,712			100	42484	18:18	07/10/04
384		1,557			100	43704	5:59	07/31/04
384		9,704			85	42429	12:00	07/08/04
412	7,608					26814	247:00	08/28/03

351	İ	619	[ 101 ]	46092	10:50	09/13/04
334	3,185			15795	1:28	02/08/03
321	4,815			15810	1:07	02/08/03
F-200	3,124			33000	5:34	12/23/03
611	1,122			38814	24:00	05/11/04
F-160	1,707			46044	0:18	09/13/04

- 18. During an investigation on June 7, 2004, TCEQ staff documented that BP Products failed to timely submit the final notification for a shutdown event. Specifically, a shutdown event occurred on May 11, 2004 in the Aromatics Recovery Unit 2 and BP Products failed to submit the final notification no later than two weeks after the end of the scheduled activity.
- 19. During an investigation on August 4, 2004, TCEQ staff documented that BP Products failed to notify the TCEQ within 24 hours of an emissions event. Specifically, an emissions event occurred in the Ultracking Unit, and BP Products did not submit notification until August 4, 2004.
- 20. During a record review on September 23, 2005, TCEQ staff documented that BP Products failed to perform an applicability determination and compliance review. The permit's Compliance Plan and Schedule required the determination and review be completed by December 31, 2004, and BP Products has not yet complied.
- 21. During a record review on September 23, 2005, TCEQ staff documented that BP Products failed to install monitoring equipment or obtain an alternate means of compliance. The permit's Compliance Plan and Schedule requires the installation of monitoring equipment or alternate means of compliance for monitoring for flares and other combustion devices subject to New Source Performance Standards by December 31, 2005, and BP Products reported on September 20, 2005 that it cannot comply with this requirement before the due date.
- 22. During a record review on September 23, 2005, TCEQ staff documented that BP Products failed to submit a complete semiannual deviation report. BP Products submitted the semiannual deviation report for the period December 7, 2004 to June 6, 2005 without including the failure to complete the applicability determination and compliance review that was due December 31, 2004.
- During an investigation on October 13, 2003, TCEQ staff documented that BP Products failed to comply with permitted emissions limits. An emissions event occurred on February 8, 2003 when the SRU was over-pressurized and safety relief valves routed emissions to Flare 381, SRU Incinerator Stack 384, and Flare 383. Flare 383 emitted 46,520 lbs/hr of SO<sub>2</sub> over a period of 1.9 hours, SRU Incinerator Stack 384 emitted 205 lbs/hr of SO<sub>2</sub> over a period of 10.6 hours, and Flare 381 emitted 7,693 lbs/hr of SO<sub>2</sub> over a period of 11.8 hours. The permitted limits for SO<sub>2</sub> from those emission points are 0.3, 161.9, and 0 lbs/hr, respectively. Because the emission event was improperly reported, and additionally, could have been avoided by better operations and maintenance practices, the emissions do not meet the demonstrations in 30 Tex. ADMIN. Code § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. Code § 101.222(b)(1-11).

BP Products North America Inc. DOCKET NO. 2005-0224-AIR-E Page 6

- 24. During an investigation on October 13, 2003, TCEQ staff documented that BP Products failed to properly report an emissions event. BP Products submitted three final emissions event reports for an emissions event that occurred on February 8, 2003, but those reports failed to identify permit number and emissions limits.
- 25. During an investigation on May 4, 2005, TCEQ staff documented that BP Products failed to comply with permitted emissions limits. During an emissions event that began on December 23, 2004, a valve positioner in the Resid Hydrotreating Unit (FIN TCH-RHU) failed and the CFH/RHU Flare (EPN 501) emitted 47.9 pounds per hour lbs/hr of SO<sub>2</sub> and 2.3 lbs/hr of CO over a 61.6 hour period, while the permit limits are 0.20 lbs/hr for SO<sub>2</sub> and 0.11 lbs/hr for CO. Since these emissions could have been avoided by good design, operation, and maintenance practices, the emissions do not meet the demonstrations in 30 Tex. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. CODE § 101.222(b)(1-11).
- During a record review on July 25, 2005, TCEQ staff documented that BP Products failed to comply with permitted emissions limits. During an emissions event on January 14, 2005, a gas stream with a high hydrogen sulfide content was routed to the CRP II Flare (EPN TCH-RHU) in the Cat Feed Hydrotreater Unit in order to keep the flare lit during an outage of gas from the flare's normal source. This resulted in the flare emitting 368 lbs/hr of SO<sub>2</sub> and 3.3 lbs/hr of CO over a 10 hour period, while the permit limits are 0.20 lbs/hr for SO<sub>2</sub> and 0.11 lbs/hr for CO. Since these emissions could have been avoided by better operations practices, the emissions do not meet the demonstrations in 30 Tex. ADMIN. Code § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. Code § 101.222(b)(1-11).
- 27. During a record review on June 2, 2005, TCEQ staff documented that BP Products failed to comply with permitted emissions limits. During an emissions event on September 25, 2004, the CFH/RHU Flare (EPN 501) in the Resid Hydrotreating Unit emitted 1,120 lbs/hr of SO<sub>2</sub> and 77 lbs/hr of CO over a 5.35 hour period, while the permit limits are 0.20 lbs/hr for SO<sub>2</sub> and 0.11 lbs/hr for CO. Since these emissions were not properly reported, and additionally, could have been avoided by better maintenance practices, the emissions do not meet the demonstrations in 30 Tex. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. CODE § 101.222(b)(1-11).
- 28. During a record review on June 2, 2005, TCEQ staff documented that BP Products failed to submit a complete emissions event report. The initial report was submitted two hours and 57 minutes late, and the final report did not include the permit number and authorized emissions limits.
- 29. During a record review on April 5, 2005, TCEQ staff documented that BP Products failed to comply with permitted emissions limits. During an emissions event on December 13, 2004, bad wiring on the 557J compressor caused the compressor to shutdown and emissions were routed to the CPR II Flare in the Resid Hydrotreating Unit. The flare emitted 1,332 lbs of SO<sub>2</sub> over a 42 minute period, while the permit limit is 0.20 lbs/hr. Since these emissions could have been avoided by better maintenance practices, the emissions do not meet the demonstrations in 30 Tex. ADMIN. CODE § 101.222 and are not subject to an affirmative defense under 30 Tex. ADMIN. CODE § 101.222(b)(1-11).

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- BP Products received notices of the violations on January 1, 2005, January 2, 2005, January 3, 2005, January 4, 2005, January 5, 2005, January 9, 2005, on or about October 14, 2005, October 16, 2005, July 22, 2005, July 23, 2005, and August 12, 2005. Additional violations were documented during a record review of self-reported violations conducted on September 23, 2005.
- 31. The Executive Director recognizes that BP Products has implemented the following corrective measures at the Plant:
  - a. On June 4, 2004, submitted the final notification for shutdown event (Incident 38814);
  - b. On August 4, 2004, notified the TCEQ of an emissions event (Incident 33000);
  - c. By April 19, 2005, provided additional emissions event report training and inspected and/or replaced components that contributed to the September 25, 2004 emission event;
  - d. By April 18, 2005, established an additional step in flare startup procedures designed to prevent unpermitted emissions of sulfur dioxide, as occurred on January 14, 2005; and
  - e. On July 13, 2005, revised Flexible Air Permit No. 47256 in order to include emissions, such as those that occurred on January 14, 2005, in a separate emission cap for maintenance, startups, and shutdowns.

## II. CONCLUSIONS OF LAW

- BP Products is subject to the jurisdiction of the TCEQ pursuant to Tex. WATER CODE § 7.002, Tex. HEALTH & SAFETY CODE ch. 382, and the rules of the Commission.
  - 2. As evidenced by Finding of Fact No. 3, BP Products failed to comply with permitted emission limits for the RHU 400 Reactor Train (EPN 501), in violation of 30 Tex. ADMIN. CODE §§ 116.115(b) and (c) and 101.20(3), Permit No. 8810/PSD-TX-402M2, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
  - 3. As evidenced by Finding of Fact No. 4, BP Products failed to comply with permitted emission limits for the RHU 200 Reactor Train (EPN 501), in violation of 30 Tex. ADMIN. CODE §§ 116.115(b) and (c) and 101.20(3), Permit No. 8810/PSD-TX-402M2, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- 4. As evidenced by Finding of Fact No. 5, BP Products failed to comply with permitted emission limits for the RHU 200 Reactor Train (EPN 501), in violation of 30 TEX. ADMIN. CODE §§ 116.115(b) and (c) and 101.20(3), Permit No. 8810/PSD-TX-402M2, General Conditions F and G and Special Condition No. 1, and TEX. HEALTH & SAFETY CODE § 382.085(b).
- As evidenced by Finding of Fact No. 6, BP Products failed to comply with permitted emission limits for the RHU 200 Reactor Train (EPN 501), in violation of 30 Tex. ADMIN. CODE §§ 116.115(b) and

- (c) and 101.20(3), Permit No. 8810/PSD-TX-402M2, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- 6. As evidenced by Finding of Fact No. 7, BP Products failed to comply with permitted emission limits for the RHU 300 Reactor Train (EPN 501), in violation of 30 Tex. ADMIN. CODE §§ 116.115(b) and (c) and 101.20(3), Permit No. 8810/PSD-TX-402M2, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- 7. As evidenced by Finding of Fact No. 8, BP Products failed to comply with permitted emission limits for the SRU (EPN 384), in violation of 30 Tex. ADMIN. CODE §§ 116.115(b) and (c), 111.111(a)(1)(C) and 101.20(3), Permit No. 8810/PSD-TX-402M2, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- 8. As evidenced by Finding of Fact No. 9, BP Products failed to comply with permitted emission limits for the SRU (EPN 384), in violation of 30 Tex. ADMIN. CODE §§ 116.115(b) and (c), 111.111(a)(1)(C) and 101.20(3), Permit No. 8810/PSD-TX-402M2, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- 9. As evidenced by Finding of Fact No. 10, BP Products failed to comply with permitted emission limits for the SRU (EPN 384), in violation of 30 Tex. ADMIN. Code §§ 116.115(b) and (c), 111.111(a)(1)(C) and 101.20(3), Permit No. 8810/PSD-TX-402M2, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- As evidenced by Finding of Fact No. 11, BP Products failed to comply with permitted emission limits for the SRU (EPN 384), in violation of 30 Tex. ADMIN. CODE §§ 116.115(b) and (c), 111.111(a)(1)(C) and 101.20(3), Permit No. 8810/PSD-TX-402M2, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- 11. As evidenced by Finding of Fact No. 12, BP Products failed to comply with permitted emission limits for the Coker Resid De-Asphalting Unit and Cooling Tower (EPN 412), in violation of 30 Tex. ADMIN. CODE § 116.115(b) and (c), Permit No. 20982, General Condition G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- 12. As evidenced by Finding of Fact No. 13, BP Products failed to comply with permitted emission limits for the Ultracracker Flare (EPN 351) and the Ultraformer Unit (EPN F-160), in violation of 30 Tex. Admin. Code § 116.115(b) and (c), Permit No. 2610, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- As evidenced by Finding of Fact No. 14, BP Products failed to comply with permitted emission limits for the Fluid Catalytic Cracking Unit (EPN 334), in violation of 30 Tex. ADMIN. CODE § 116.115(b) and (c), Permit No. 18707, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- 14. As evidenced by Finding of Fact No. 15, BP Products failed to comply with permitted emission limits for the Fluid Catalytic Cracking Unit (EPN 321), in violation of 30 Tex. ADMIN. CODE

- § 116.115(b) and (c), Permit No. 18707, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- As evidenced by Finding of Fact No. 16, BP Products failed to comply with permitted emission limits for Flare # 3 (EPN F-200) in the Ultrackracker Unit, in violation of 30 Tex. ADMIN. CODE § 116.115(b) and (c), Permit No. 2609, General Conditions F and G and Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- 16. As evidenced by Finding of Fact No. 17, BP Products failed to comply with permitted emission limits for the Aromatics Recovery Unit (EPN 611), in violation of 30 Tex. ADMIN. CODE § 116.115(b) and (c), Permit No. 2612, General Condition F and Special Condition No. 1, and Tex. HEALTH & SAFETY CODE § 382.085(b).
- 17. As evidenced by Finding of Fact No. 18, BP Products failed to timely submit the final notification for a shutdown event, in violation of 30 Tex. ADMIN. CODE § 101.211(c) and Tex. HEALTH & SAFETY CODE § 382.085(b).
- 18. As evidenced by Finding of Fact No. 19, BP Products failed to notify the TCEQ within 24 hours of an emissions event, in violation of 30 Tex. ADMIN. CODE § 101.201(a)(1)(B) and (2)(G) and Tex. HEALTH & SAFETY CODE § 382.085(b).
- 19. As evidenced by Finding of Fact No. 20, BP Products failed to perform an applicability determination and compliance review, in violation of 30 Tex. ADMIN. CODE §§ 122.142(a) and 122.143(4) and Federal Operating Permit ("FOP") No. O1541, Compliance Plan and Schedule, and Tex. Health & Safety Code § 382.085(b).
- 20. As evidenced by Finding of Fact No. 21, BP Products failed to install monitoring equipment or obtain an alternate means of compliance, in violation of 30 Tex. ADMIN. CODE §§ 122.142(a) and 122.143(4), FOP No. 01541, Compliance Plan and Schedule, and Tex. Health & Safety Code § 382.085(b).
- 21. As evidenced by Finding of Fact No. 22, BP Products failed to submit a complete semiannual deviation report, in violation of 30 Tex. ADMIN. CODE § 122.145(2)(A), FOP No. O1541, General Terms and Conditions, and Tex. Health & Safety Code § 382.085(b).
- 22. As evidenced by Finding of Fact No. 23, failed to comply with permitted emission limits for Flare 381, SRU Incinerator Stack 384, and Flare 383, in violation of 30 Tex. ADMIN. CODE §§ 116.115 (c) and 101.20(3), Permit No. 8810/PSD-TX-402M2, Special Condition No. 1, and Tex. Health & SAFETY CODE § 382.085(b).
- 23. As evidenced by Finding of Fact No. 24, failed to properly report an emissions event that occurred on February 8, 2003, in violation of 30 Tex. ADMIN. CODE § 101.201(b)(8) and Tex. HEALTH & SAFETY CODE § 382.085(b).

that:

- As evidenced by Finding of Fact No. 25, failed to comply with permitted emission limits for the CFH/RHU Flare, in violation of 30 Tex. ADMIN. CODE §§ 116.115(c) and 101.20(3), Permit No. 8810/PSD-TX-402M2, Special Condition No. 1, and Tex. HEALTH & SAFETY CODE § 382.085(b).
- 25. As evidenced by Finding of Fact No. 26, failed to comply with permitted emission limits for the CRP II Flare, in violation of 30 Tex. ADMIN. CODE §§ 116.115(c) and 101.20(3), Permit No. 8810/PSD-TX-402M2, Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- As evidenced by Finding of Fact No. 27, failed to comply with permitted emission limits for the CFH/RHU Flare, in violation of 30 Tex. ADMIN. CODE §§ 116.115(c) and 101.20(3), Permit No. 8810/PSD-TX-402M2, Special Condition No. 1, and Tex. HEALTH & SAFETY CODE § 382.085(b).
- 27. As evidenced by Finding of Fact No. 28, failed to submit a complete emissions event report for an emissions event that occurred on September 25, 2004, in violation of 30 Tex. ADMIN. CODE § 101.201(a)(1)(B) and 101.201(b)(8) and Tex. Health & Safety Code § 382.085(b).
- 28. As evidenced by Finding of Fact No. 29, failed to comply with permitted emission limits for the CPR II Flare, in violation of 30 Tex. ADMIN. CODE §§ 116.115(c) and 101.20(3), Permit No. 8810/PSD-TX-402M2, Special Condition No. 1, and Tex. Health & Safety Code § 382.085(b).
- 29. Pursuant to TEX. WATER CODE § 7.051, the Commission has the authority to assess an administrative penalty against BP Products for violations of the Texas Water Code and the Texas Health and Safety Code within the Commission's jurisdiction; for violations of rules adopted under such statutes; or for violations of orders or permits issued under such statutes.
- 30. An administrative penalty in the amount of Three Hundred Thirty-Six Thousand Five Hundred Fifty-Six Dollars (\$336,556) is justified by the facts recited in this Agreed Order, and considered in light of the factors set forth in Tex. WATER CODE § 7.053. BP Products has paid the Three Hundred Thirty-Six Thousand Five Hundred Fifty-Six Dollar (\$336,556) administrative penalty.

## III. ORDERING PROVISIONS

NOW, THEREFORE, THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY ORDERS

1. BP Products is assessed an administrative penalty in the amount of Three Hundred Thirty-Six Thousand Five Hundred Fifty-Six Dollars (\$336,556), as set forth in Section II, Paragraph 30 above, for violations of TCEQ rules and state statutes. The imposition of this administrative penalty and BP Products' compliance with all the terms and conditions set forth in this Agreed Order completely resolve the violations set forth by this Agreed Order in this action. However, the Commission shall not be constrained in any manner from requiring corrective actions or penalties for other violations that are not raised here. Administrative penalty payments shall be made payable to "TCEQ" and shall be sent with the notation "Re: BP Products North America Inc., Docket No. 2005-0224-AIR-E" to:

BP Products North America Inc. DOCKET NO. 2005-0224-AIR-E Page 11

> Financial Administration Division, Revenues Section Attention: Cashier's Office, MC 214 Texas Commission on Environmental Quality P.O. Box 13088 Austin, Texas 78711-3088

- 2. Immediately after the effective date of this Agreed Order, until the date on which BP Products submits its last certification of compliance as required by Ordering Provisions No. 4.a. of this section, BP Products shall be liable to the Commission for stipulated penalties for each calendar day during which BP Products fails to comply with any deadline in Ordering Provisions No. 4. The amount of the stipulated penalty will be \$10,000 per day for each day, or part of a day, that a deadline is exceeded. Deadline exceedances to which this Paragraph applies shall not (1) be the subject of a notice of violation; or (2) be treated as violations under 30 Tex. ADMIN. Code Chapter 60.
- 3. Within 30 days after the end of each calendar quarter for which stipulated penalties are due, BP Products shall send to TCEQ the stipulated penalties due for that quarter. The stipulated penalties shall be made payable to "TCEQ" and shall be sent, by certified mail, return receipt requested, and with the notation "Re: BP Products North America Inc., Docket No. 2005-0224-AIR-E," to the address in Paragraph 1 of this section. At the time payment is sent, a copy of the payment and a report concerning the stipulated penalties shall be sent to the TCEQ regional office. The report shall include the total amount of the stipulated penalties due, the dates for which stipulated penalties are due.
- 4. It is further ordered that BP Products shall undertake the following technical requirements:
  - a. Immediately after the effective date of this Agreed Order, BP Products shall implement the NSPS Subpart J Plan attached as Exhibit A, which is hereby incorporated into and made part of this Agreed Order, and:
    - i. During the period before the deadline specified in Paragraph 7.(c) of the NSPS Subpart J Plan, if BP Products submits a permit application to authorize the construction, modification (as that term is defined in 40 Code of Federal Regulations ("C.F.R.") § 60.2), reconstruction [as that term is defined or described in 40 C.F.R. §§ 60.15 and 60.100(e)], and operation of a flare or other combustion device at the Plant that will combust one or more streams that previously were vented to a blowdown stack at the Plant ("Blowdown Retirement Combustion Device"), BP Products shall reference in its permit application(s) this Agreed Order, and each such Blowdown Retirement Combustion Device shall be considered an "affected facility" pursuant to NSPS Subpart J and shall be subject to the NSPS Subpart J Plan as if it were included in Exhibit A-1 thereto. BP shall certify compliance with Subpart J for each Blowdown Retirement Combustion Device no later than 180 days after initial startup of such device, except that if BP Products elects to employ either of the compliance methods in Paragraphs 3(a) or 3(b) of the NSPS Subpart J Plan, BP Products shall not be required to certify compliance to the TCEQ with such compliance method until 3 years after submission of the permit

BP Products North America Inc. DOCKET NO. 2005-0224-AIR-E Page 12

application for the Blowdown Retirement Combustion Device or until 5 years after the effective date of this Agreed Order, whichever is sooner. If BP certifies compliance with Subpart J within 180 days for a Blowdown Retirement Device, then there is no need for the device to be subject to the NSPS Subpart J Plan. As long as such Blowdown Retirement Combustion Devices are constructed, modified, reconstructed, and operated in compliance with the requirements of this Agreed Order and the NSPS Subpart J Plan, TCEQ shall consider their construction, modification, reconstruction, and operation to be in compliance with NSPS Subpart J;

- ii. Nothing in this Agreed Order shall prevent the Executive Director from initiating an enforcement action against BP Products alleging that emissions from any Affected Combustion Device constitute an emissions event, as that term is defined in Tex. Health & Safety Code § 382.0215(a)(1). For each emissions event from an Affected Combustion Device, BP shall comply with the requirements of 30 Tex. ADMIN. CODE § 101.201. In addition, following the effective date of the Agreed Order, for each flaring event at an Affected Combustion Device or Blowdown Retirement Combustion Device that involves the release of 500 or more pounds of sulfur dioxide in a period of 24 hours (an "Acid Gas Flaring Event"), BP Products shall prepare a detailed analysis (a "flaring root cause report") that sets forth the root cause and all significant contributing causes of that Acid Gas Flaring Event, to the extent determinable, and undertakes an analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of the incident resulting from the same root cause or significant contributing causes in the future. If two or more reasonable alternatives exist to address the root cause, the analysis shall discuss the alternatives, if any, that are available, the probable effectiveness and cost of the alternatives, and whether or not an outside consultant should be retained to assist in the analysis. Possible design, operation and maintenance changes shall be evaluated. If BP Products concludes that corrective action(s) is (are) required, the flaring root cause report shall include a description of the action(s) and, if not already completed, a schedule of its (their) implementation, including proposed commencement and completion dates. If BP Products concludes corrective action is not required, then the flaring root cause report shall explain the basis for that conclusion. The flaring root cause report shall be submitted within 30 days of the flaring event, and BP Products may request an extension to the 30 day period for good cause shown;
- iii. During the period before the applicable deadline specified in Paragraph 7 of the NSPS Subpart J Plan, the Executive Director agrees not to pursue enforcement action against BP Products alleging that any Affected Combustion Device does not comply or has not complied with NSPS Subpart J or seeking corrective action with respect to NSPS Subpart J beyond or different from the requirements in the NSPS Subpart J Plan;
- iv. After the termination of this Agreed Order, the Executive Director will not pursue an enforcement action against BP Products alleging that any of the Affected

Combustion Devices for which BP Products has certified compliance with NSPS Subpart J pursuant to the NSPS Subpart J Plan did not comply with NSPS Subpart J before the applicable deadline specified in Paragraph 7 of the NSPS Subpart J Plan or seeking corrective action with respect to NSPS Subpart J to address violations alleged to have occurred before the applicable deadline specified in Paragraph 7 of the NSPS Subpart J Plan, unless the Executive Director determines that BP Products' certification was not correct; and

v. The submittal of documents required by Ordering Provision 4.a. shall be made to:

Air Permits Division, MC 162 Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087

- b. Within 30 days after the effective date of this Agreed Order:
  - i. Implement improvement to designs, operations, and/or maintenance practices that address the causes leading to the emissions events enumerated in Findings of Fact 3 through 17, 23, 25, 26, and 29;
  - ii. In order to correct the deficiencies noted in Findings of Fact 24, submit corrected emissions event reports, in accordance with 30 Tex. ADMIN. CODE § 101.201(b)(8);
  - iii. In order to correct the deficiency noted in Findings of Fact 22, submit a revised semiannual deviation report, in accordance with 30 Tex. ADMIN. CODE § 122.145(2)(A); and
  - iv. Submit the reports required by Ordering Provisions 4.b.ii and 4.b.iii. to:

Order Compliance Team
Enforcement Division, MC-149A
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

with a copy to:

Manager, Air Section Houston Regional Office Texas Commission on Environmental Quality 5425 Polk Avenue, Suite H Houston, Texas 77023

- c. Within 45 days after the effective date of this Agreed Order, submit written certification of compliance with Ordering Provisions 4.b.;
- d. Within 365 days after the effective date of this Agreed Order, above, submit written certification of compliance that the Plan required by Exhibit A 5. has been submitted;
- e. Within two years after the Exhibit A 5. Plan submittal, submit written certification of compliance with Exhibit A 7.(a);
- f. Within three years after the Exhibit A 5. Plan submittal, submit written certification of compliance with Exhibit A 7.(b);
- g. Within four years after the Exhibit A 5. Plan submittal, submit written certification of compliance with Exhibit A 7.(c); or in the alternative to the scheduling in Exhibit A 7;
- h. Within three years after submittal of a permit application, or within five years after the effective date of this Agreed Order, whichever is earlier, pursuant to Ordering Provision 4.a.i., submit written compliance with that Ordering Provision; and
- i. The certifications required by Ordering Provisions 4.c. through 4.j. shall include detailed supporting documentation including receipts, and/or other records to demonstrate compliance, be notarized by a State of Texas Notary Public and include the following certification language:

"I certify that under the penalty of law that I have personally examined and am familiar with the information submitted and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtained the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

The certification shall be submitted to:

Order Compliance Team
Enforcement Division, MC 149A
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

with a copy to:

Manager, Air Section Houston Regional Office Texas Commission on Environmental Quality 5425 Polk Avenue, Suite H

## Houston, Texas 77023

- 5. The provisions of this Agreed Order shall apply to and be binding upon BP Products. BP Products is ordered to give notice of this Agreed Order to personnel who maintain day-to-day control over the Plant operations referenced in this Agreed Order.
- 6. If BP Products fails to comply with any of the Ordering Provisions in this Agreed Order within the prescribed schedules, and that failure is caused solely by an act of God, war, strike, riot, or other catastrophe, BP Products' failure to comply is not a violation of this Agreed Order. BP Products has the burden of establishing to the Executive Director's satisfaction that such an event has occurred. BP Products shall notify the Executive Director within seven days after BP Products becomes aware of a delaying event and shall take all reasonable measures to mitigate and minimize any delay.
- 7. The Executive Director may grant an extension of any deadline in this Agreed Order or in any plan, report, or other document submitted pursuant to this Agreed Order, upon a written and substantiated showing of good cause. All requests for extensions by BP Products shall be made in writing to the Executive Director. Extensions are not effective until BP Products receives written approval from the Executive Director. The determination of what constitutes good cause rests solely with the Executive Director.
- 8. The Executive Director may refer this matter to the Office of the Attorney General of the State of Texas ("OAG") for further enforcement proceedings without notice to BP Products if the Executive Director determines that BP Products has not complied with one or more of the terms or conditions in this Agreed Order.
- 9. This Agreed Order shall terminate five years from its effective date or upon compliance with all the terms and conditions set forth in this Agreed Order, whichever is later.
- 10. This Agreed Order, issued by the Commission, shall not be admissible against BP Products in a civil proceeding, unless the proceeding is brought by the OAG to: (1) enforce the terms of this Agreed Order; or (2) pursue violations of a statute within the Commission's jurisdiction, or of a rule adopted or an order or permit issued by the Commission under such a statute.
- 11. This agreement may be executed in multiple counterparts, which together shall constitute a single original instrument. Any executed signature page to this Agreement may be transmitted by facsimile transmission to the other parties, which shall constitute an original signature for all purposes.
- 12. The Chief Clerk shall provide a copy of this Agreed Order to each of the parties. By law, the effective date of this Agreed Order is the third day after the mailing date, as provided by 30 Tex. ADMIN. CODE § 70.10(b) and Tex. Gov't Code § 2001.142.

## SIGNATURE PAGE

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Athleen H. White	
For the Commission	
Johnsenen Verdu	513106
For the Executive Director	. Date
America Inc., I am authorized to agree to the a America Inc., and do agree to the specified t	ched Agreed Order in the matter of BP Products North attached Agreed Order on behalf of BP Products North terms and conditions. I further acknowledge that the amount, is materially relying on such representation.
procedural rights, including, but not limited to this Agreed Order, notice of an evidentiary he to appeal. I agree to the terms of the Agreed	er, BP Products North America Inc. waives certain o, the right to formal notice of violations addressed by earing, the right to an evidentiary hearing, and the right Order in lieu of an evidentiary hearing. This Agreed by the Commission of the violations set forth in this
penalties, and/or attorney fees, or to a .  Increased penalties in any future enforcement	n: ; ubmitted by me; 's Office for contempt, injunctive relief, additional a collection agency; t actions against me; Office of any future enforcement actions against
CAN celler px Signature	3 /22 /06 Date
COLIN H. J. MACLEAN	
Name (printed or typed)	BUSINESS UNIT LEADER Title
Authorized Representative	1110
BP Products North America Inc.	

#### EXHIBIT A

#### NSPS SUBPART J PLAN

- 1. BP Products owns and operates the flares and other combustion devices at the Plant listed on the attached Exhibit A-1 (the "Affected Combustion Devices"). Subject to the terms of this Agreed Order, BP Products accepts that the Affected Combustion Devices are subject to the New Source Performance Standard Subpart J, 40 C.F.R. Part 60 Subpart J ("NSPS Subpart J") as fuel gas combustion devices, in addition to being emergency control devices for releases of combustible gases. BP Products' entry into this Agreed Order shall be considered to satisfy any notification obligations to TCEQ for the Affected Combustion Devices pursuant to 40 C.F.R. § 60.7.
- 2. BP Products shall at all times, and to the extent practicable, including during periods of startup, shutdown, and malfunction, implement good air pollution control practices for minimizing emissions from the Affected Combustion Devices consistent with 30 Tex. ADMIN. CODE § 101.221 and 40 C.F.R. § 60.11(d).
- 3. For each of the Affected Combustion Devices, BP Products will elect to use one or any combination of the following NSPS Subpart J compliance methods:
  - (a) Operate and maintain a flare gas recovery system to control continuous or routine combustion in the Affected Combustion Device. Use of a flare gas recovery system on an Affected Combustion Device eliminates the need to continuously monitor and maintain records of hydrogen sulfide in the gas as otherwise required by 40 C.F.R. §§ 60.105(a)(4) and 60.7;
  - (b) Operate the Affected Combustion Device as a fuel gas combustion device and comply with NSPS monitoring requirements by use of a continuous emissions monitoring system ("CEMS") pursuant to 40 C.F.R. § 60.105(a)(4) or with a predictive monitoring system approved by TCEQ as an alternative monitoring system pursuant to 40 C.F.R. § 60.13(i);
  - (c) Eliminate the routes of continuous or intermittent, routinely generated fuel gases to an Affected Combustion Device and operate the Affected Combustion Device such that it receives only process upset gases (as defined in 40 C.F.R. § 60.101(e)), fuel gas released as a result of relief valve leakage or gases released due to other emergency malfunctions; or
  - (d) Eliminate to the extent practicable routes of continuous or intermittent, routinely generated fuel gases to an Affected Combustion Device and monitor the Affected Combustion Device by use of a CEMS (in accordance with 40 C.F.R. § 60.105(a)(4)) and a flow meter; provided, however, that this compliance method may not be used unless BP Products: (i) demonstrates to TCEQ that the Affected Combustion Device in question emits less than 500 pounds per day of SO<sub>2</sub> under normal conditions; (ii) secures TCEQ approval for use of this method as the selected compliance method; and (iii) uses this compliance method for 5 or fewer of the Affected Combustion Devices.

- 4. For the compliance method described in Paragraph 3(b) above, to the extent that BP Products seeks to use an alternative monitoring method at a particular Affected Combustion Device to demonstrate compliance with the limits of 40 C.F.R. § 60.104(a)(1), EPA must approve any alternate monitoring plan for NSPS Subpart J Refinery Fuel gas before implementation; provided, however, that upon submitting the application for approval to TCEQ and EPA, BP Products may begin to use immediately the alternative method for which approval is being sought if it is the same as or is substantially similar to the method identified as the "Alternative Monitoring Plan for NSPS Subpart J Refinery Fuel Gas" attached hereto as Exhibit A-2.
- 5. BP Products will submit a Compliance Plan for the Affected Combustion Devices (the "Plan") to TCEQ by no later than 365 days following the effective date of this Agreed Order. The Plan will have the objective of reducing to the extent practicable: (a) the routing of continuous or intermittent, routinely generated fuel gas streams that contain hydrogen sulfide of greater than 230 mg/dscm (0.10 gr/dscf) to Affected Combustion Devices; and (b) the streams that contain hydrogen sulfide that BP Products considers to be the result of alleged malfunctions, process upsets, and/or relief valve leakage, taking into consideration the source, frequency, and expected hydrogen sulfide concentration of the stream.
- 6. In the Plan, BP Products will:
  - (a) Identify which compliance method in Paragraph 3 BP Products anticipates using for each Affected Combustion Device;
  - (b) Describe the activities that BP Products has taken or anticipates taking to meet the objectives of Paragraph 5 for each Affected Combustion Device and the schedule for undertaking those activities consistent with the requirements of Section 7 below.

BP Products shall be free to modify the Plan from time to time with respect to any or all of: (i) the compliance method that BP Products anticipates using for a particular Affected Combustion Device; (ii) the activities that BP Products anticipates taking to meet the objectives of Paragraph 5 for a particular Affected Combustion Device; or (iii) the schedule by which BP Products will undertake activities to meet the objectives of Paragraph 5 for a particular Affected Combustion Device; provided, however, that BP Products shall comply with the schedule in Paragraph 7 and BP Products shall provide prompt written notice of the Plan changes to TCEQ.

- 7. BP Products shall achieve and certify compliance with NSPS Subpart J for all Affected Combustion Devices on the following schedule:
  - (a) For at least one-third Affected Combustion Devices: by no later than 3 years after the effective date of this Agreed Order;
  - (b) For at least one-third additional Affected Combustion Devices: by no later than 4 years after the effective date of this Agreed Order; and
  - (c) For all remaining Affected Combustion Devices: by no later than 5 years after the effective date of this Agreed Order.

- By no later than ninety (90) days after bringing an Affected Combustion Device that is also a flare into compliance by using the methods in Paragraph 3, BP Products will conduct a fiare performance test pursuant to 40 C.F.R. §§ 60.8 and 60.18, or a TCEQ-approved equivalent method, unless such performance test has previously been performed. In lieu of conducting the velocity test required in 40 C.F.R. § 60.18, BP Products may submit velocity calculations that demonstrate that the Affected Combustion Device meets the performance specification required by 40 C.F.R. § 60.18. Nothing in this Paragraph is intended to prevent BP Products from seeking approval of an alternative method of demonstrating compliance with the requirements of 40 C.F.R. § 60.18.
- 9. The combustion in an Affected Combustion Device of process upset gas or fuel gas that is released to the Affected Combustion Device as a result of relief gas leakage or other emergency malfunctions is exempt from the requirement to comply with 40 C.F.R. § 60.104(a)(1).
- 10. The parties recognize that periodic maintenance may be required for properly designed and operated flare gas recovery systems. To the extent that BP Products currently operates or will operate flare gas recovery systems, BP Products will take all reasonable measures to minimize emissions while such periodic maintenance is being performed.
- 11. The parties recognize that under certain conditions, a flare gas recovery system may need to be bypassed in the event of an emergency or in order to ensure safe operation of a refinery process. Nothing in this Agreed Order precludes BP Products from temporarily bypassing a flare gas recovery system under such circumstances.

TCH-RHU (EPN 501)

## EXHIBIT A - 1

FLRA-DDU (EPN 396A)

LIST OF COMBUSTION DEVICES AT THE BP PRODUCTS TEXAS CITY REFINERY TO BE SUBJECT TO THE REQUIREMENTS OF THE NSPS SUBPART J PLAN

TCH-1 (EPN 301)		TCH-SRU CD (EPN 383)
TCH-2 (EPN 311)		TCH-UC (EPN 351)
TCH-3 (EPN 321)		TO-WWTP (EPN 293)
TCH-4 (EPN 331)		TCH-SW (EPN FLR-SW)
TCH-5 (EPN FLR-5)	· · · · · · · · · · · · · · · · · · ·	TCH-SRUAB (EPN 381)
TCH-6-ALK3 (EPN 530)		LD-RKS (EPN 294-1)
TCH-7 (EPN 14)		LD-RKS (EPN 294-2)
TCH-ARU (EPN 341)	•	LD-RKS (EPN 294-3)
TCH-AU2 (EPN611)		TO-Dock 54E (EPN 379)
TCH-DDU (EPN 396)		FLRAULC (EPN 351A)

#### EXHIBIT A-2

## ALTERNATIVE MONITORING PLAN FOR NSPS SUBPART J REFINERY FUEL GAS

## Conditions for Approval of the Alternative Monitoring Plan for Miscellaneous Refinery Fuel Gas Streams

Refinery fuel gas streams/systems eligible for the Alternative Monitoring Plan (AMP) should be inherently low in H<sub>2</sub>S content, and such H<sub>2</sub>S content should be relatively stable. The refiner requesting an AMP should provide sufficient information to allow for a determination of appropriateness of the AMP for each gas stream/system requested. Such information should include, but need not be limited to:

- 1. A description of the gas stream/system to be considered, including submission of a portion of the appropriate piping diagrams indicating the boundaries of the gas stream/system, and the affected fuel gas combustion device(s) to be considered and an identification of the proposed sampling point for the alternative monitoring;
- 2. A statement that there are no crossover or entry points for sour gas (high H<sub>2</sub>S content) to be introduced into the gas stream/system. (This should be shown in the piping diagrams);
- 3. An explanation of the conditions that ensure low amounts of sulfur in the gas stream (i.e., control equipment or product specifications) at all times;
- 4. The supporting test results from sampling the requested gas stream/system using appropriate H<sub>2</sub>S monitoring (i.e., detector tube monitoring following the Gas Processor Association's Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, 1986 Revision), at minimum:
  - for frequently operated gas streams/systems two weeks of daily monitoring (14 samples); and
  - b. for infrequently operated gas streams/systems, 7 samples shall be collected and analyzed unless other additional information would support reduced sampling.

Note: All samples are grab samples.

- 5. A description of how the two weeks (or seven samples for infrequently operated gas streams/systems) of monitoring results compares to the typical range of H<sub>2</sub>S concentration (fuel quality) expected for the gas stream/system going to the affected fuel gas combustion device, (e.g., the two weeks of daily detector tube results for a frequently operated loading rack included the entire range of products loaded out, and, therefore, should be representative of typical operating conditions affecting H<sub>2</sub>S content in the gas stream going to the loading rack flare);
- 6. Identification of a representative process parameter that can function as an indicator of a stable and low H<sub>2</sub>S concentration for each fuel gas stream/system, (e.g., review of gasoline sulfur content as an indicator of sulfur content in the vapors directed to a loading rack flare);

7. Suggested process parameter limit for each stream/system, the rationale for the parameter limit and the schedule for the acquisition and review of the process parameter data. The refiner will collect the proposed process parameter data in conjunction with the testing of the fuel gas stream's stable and low H<sub>2</sub>S concentration.

The following shall be used for measuring H<sub>2</sub>S in fuel gas within these types of AMPs unless the refiner requests, in writing, for approval of an alternative methodology:

- a. Conduct H<sub>2</sub>S testing using detector tubes ("length-of-stain tube" type measurement);
- b. Detector tube ranges 0-10/0-100 ppm (N = 10/1) shall be used for routine testing; and
- c. Detector tube ranges 0-500 ppm shall be used for testing if measured concentration exceeds 100 ppm  $H_2S$ .

## Data Range and Variability Calculation and Acceptance Criteria

For each step of the monitoring schedule, sample range and variability will be determined by calculating the average plus 3 standard deviations for that test data set.

1. If the average plus 3 standard deviations for the test data set is less than 81 ppm H<sub>2</sub>S, the sample range and variability are acceptable and the refiner can proceed to the next step of the monitoring schedule.

Note: 81 ppm is one-half the maximum allowable fuel gas standard under NSPS Subpart I, and the Agency believes that using 81 ppm acceptance criteria provides a sufficient margin for ensuring that the emission limit is not exceeded under normal operating conditions.

- 2. If the data shows an unacceptable range and variability at any step (the average plus 3 standard deviations is equal to greater than 81 ppm H<sub>2</sub>S), then move to Step 7. Agency approval is required to proceed to the next step if the average plus 3 standard deviations is between 81 ppm and 162 ppm H<sub>2</sub>S. As an example, approval may be granted based on a review of the test data and any pertinent information which demonstrates that sample variability during the test period was due to unusual circumstances. Supplemental test data may be taken to demonstrate that process variability is within the plan requirements. Data may be removed from the variability calculations for cause after agency approval.
- 3. For Steps 3 and 4, if the data shows an unacceptable range and variability (the average plus 3 standard deviations is equal to or greater than 81 ppm H<sub>2</sub>S), the source will drop back to the previous step's monitoring schedule.
- 4. If at any time, one detector tube sample value is equal to or greater than 81 ppm H<sub>2</sub>S, then begin sampling as specified in Step 6. Note: Standard deviation cannot be calculated for a data set containing one point.

## Monitoring Schedule for Approved AMPs

For gas streams which must meet product specifications for sulfur content, one time only detection tube sampling along with a certification that the gas stream is subject to product or pipeline specifications is sufficient for the AMP. If the gas stream composition changes (i.e., new gas sources are added), or if the gas stream will no longer be required to meet product or pipeline specifications, then the gas stream must be resubmitted for approval under the AMP.

The following are examples of streams needing one time only monitoring:

- 1. Certified commercial grade natural gas;
- 2. Certified commercial grade LPG;
- 3. Certified commercial grade hydrogen;
- 4. Gasoline vapors from a loading rack that only loads gasoline meeting a product specification for sulfur content.

For other gas streams, the  $H_2S$  content of each refinery fuel gas stream/system with an approved AMP shall be monitored per the following schedule:

## Step 1:

The refiner will monitor the selected process parameter for each stream/system, according to the established process parameter monitoring or review schedule approved by the agency in the AMP, and at times when conducting  $H_2S$  detector tube sampling.

## Step 2:

The refiner will conduct random detector tube sampling twice per week for each stream/system for a period of six months (52 samples). For fuel gas streams infrequently generated and combusted in affected fuel gas combustion devices (i.e., less frequent than bi-weekly), detector tube samples shall be taken each time the fuel gas stream is generated and combusted. A total of at least 24 samples shall be collected for infrequently generated gas streams. Monitor and record the selected process parameter in accordance with the established schedule, and at times when conducting  $H_2S$  testing. Move to Step 3 if the calculated range and variability of the data meets the established acceptance criteria. Submit test data (raw measurements plus calculated average and variability) to the agency quarterly.

## Step 3:

The refiner will conduct random H<sub>2</sub>S sampling once per quarter for a period of six quarters (6 samples) with a minimum of 1 month between samples. A minimum of 9 samples are required for infrequently generated and combusted fuel gas streams before proceeding to Step 4. Continue to monitor and record the selected process parameter in accordance with the established schedule, and at times when conducting H<sub>2</sub>S testing.

Move to Step 4 if the calculated range and variability of the data meets the established acceptance criteria. Submit test data (raw measurements plus calculated average and variability) to the agency quarterly.

## Step 4:

The refiner will conduct random  $H_2S$  sampling twice per year for a period of two years (4 samples); sample randomly in the 1st and 3rd quarters with a minimum of 3 months between samples. Continue to monitor and record the selected process parameter in accordance with the established schedule, and at times when conducting  $H_2S$  testing. Move to Step 5 if the calculated range and variability of the data meets the established criteria. Submit test data (raw measurements plus calculated average and variability) to the agency semiannually.

## Step 5:

The refiner will continue to conduct testing on semi-annual basis. Testing is to occur randomly once every semi-annual period with a minimum of 3 months between samples. Continue to monitor and record the selected process parameter in accordance with the established schedule, and at times when conducting  $H_2S$  testing. If any one sample is equal to or greater than 81 ppm  $H_2S$ , then proceed to the sampling specified in Step 7. Note: Standard deviation cannot be calculated for a data set containing one point.

## Step 6:

If, at any time, the selected process parameter data indicates a potential change in  $H_2S$  concentration, or a single detector tube sample value is equal to or greater than 81 ppm  $H_2S$ , then the fuel gas stream shall be sampled with detector tubes on a daily basis for 7 days (or for infrequently generated gas streams – 7 samples during the same period of an indicated change in  $H_2S$  concentration, or as otherwise approved by the agency). If the average detector tube result plus 3 standard deviations for those seven samples is less than 81 ppm  $H_2S$ , the date and value of change in the selected process parameter indicator and the sample results shall be included in the next quarterly report, and the refiner shall resume monitoring in accordance with the schedule of the current step. If the average plus 3 standard deviations for those seven samples is equal to or greater than 81 ppm  $H_2S$ , sampling shall follow the requirements of Step 7.

## Step 7:

If sample detector tube data indicates a potential for the emission limit to be exceeded (the average plus 3 standard deviations is equal to or greater than 81 ppm H<sub>2</sub>S), as determined in the Data Range and Variability Calculation and Acceptance Criteria or in Step 6, the refiner shall notify the agency of those results before the end of the next business day following the last sample day. The fuel gas stream shall subsequently be tested daily for a two week period (or 14 samples during the same event or as otherwise approved by the agency for infrequently generated gas streams). After the two week

period is complete, sampling will continue once per week, until the agency approves a revised sampling schedule or makes a determination to withdraw approval of the gas stream/system from the AMP. Note: At any time, a detector tube value in excess of the 162 ppm limit is evidence that the emission standard has been exceeded.

## General Provisions of Approved AMPs

Upon agency request, the refiner shall conduct a test audit for any gas stream with an approved AMP. The audit shall consist of daily detector tube samples collected over a one week period (7 samples). For fuel gas streams infrequently generated and combusted in affected fuel gas combustion devices, an audit shall consist of 3 consecutive sampling events. (e.g., Rail loading may occur once per month, an audit would consist of 3 consecutive loading events). The United States Environmental Protection Agency, with due notice, reserves the right to withdraw approval of the AMP for any gas stream/system.

The course shall keep records of the  $\rm H_2S$  detector tube test data and the representative process parameter data and fuel source for at least two years.

If a new fuel gas stream is introduced into a fuel gas stream with an approved AMP, the refiner shall again apply for an AMP and repeat Steps 1-5.

#### Example:

An AMP Application for a Hydrogen Plant PSA Off-Gas Stream Combusted Exclusively in the Hydrogen Plant Process Heater:

#### Process Description

Hydrogen production for the refinery by the stream methane reforming process. CO<sub>2</sub> is the primary impurity in the hydrogen produced; small amounts of CO and methane are also present. Unpurified hydrogen is passed over molecular sieve absorbent beds to remove these impurities. The off gas from regeneration of the absorbent beds is called PSA off-gas. It is sent to the hydrogen plant heater to recover heat and control CO emissions.

## Pipe Diagrams

Piping diagrams should be supplied to show monitoring location and to demonstrate that there is no potential for cross over or entry points for sour gas.

## Basis for PSA Off-Gas Low H-S Content

Since PSA off-gas is a byproduct of hydrogen purification, any  $H_2S$  in the PSA purge gas must come from the hydrogen unit feed. Levels of  $H_2S$  in the PSA gas are negligible because  $H_2S$  must be controlled to prevent deactivation of the unit's catalyst.

 $\rm H_2S$  is a permanent catalyst poison. The hydrogen unit has 2 scrubbers to remove  $\rm H_2S$  from the feed gas to protect the unit's catalyst from  $\rm H_2S$  poisoning. The scrubbers are operated in series. The lead scrubber must exhibit at least a 70% reduction in  $\rm H_2S$  content. If not, the scrubber is taken off line and the absorbent is replaced. After the absorbent is replaced, the scrubber is placed on line as the second scrubber in series. This maximizes the amount of  $\rm H_2S$  removal and assures maximum scrubbing potential when one scrubber is off line for absorbent replacement.

## Process Parameter Monitoring and Suggested Process Parameter Limit

Operation of the scrubbers is checked on a monthly basis with detector tubes. The feed gas  $H_2S$  content is measured at the inlet and outlet of the lead scrubber. If natural gas is used as hydrogen plant feed, both readings are below the 1 ppm detection limit. If refinery fuel gas is the feed gas, 30 ppm to 40 ppm  $H_2S$  is normally detected at the inlet. A lead scrubber outlet reading of 10-12 ppm  $H_2S$  would trigger absorbent replacement. The suggested process parameter limit is 20 ppm  $H_2S$  at the lead  $H_2S$  absorber outlet. Absorber outlet  $H_2S$  measurements will be taken in conjunction with the PSA gas measurements during Steps 2 and 3.

Kathleen Hartnett White, Chairman Larry R. Soward, Commissioner Glenn Shankle, Executive Director



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 12, 2006

## CERTIFIED MAIL

Colin H. J. MacLean, Business Unit Leader Don Parus, Director Kathren M. Lucas, Operations Manager BP Products North America, Inc. P.O. Box 401 Texas City, Texas 77592-0401

RE: BP Products North America, Inc.

TCEQ Docket No. 2005-0224-AIR-E; TCEQ Account No. GB-0004-L Agreed Order Assessing Administrative Penalties and Requiring Certain Actions

Enclosed is a copy of an order issued by the Commission.

askaris

Questions regarding the order should be directed to the Enforcement Coordinator or the Staff Attorney. If there are questions pertaining to the mailing of the order, then please contact Tim Mees of the Texas Commission on Environmental Quality's Office of the Chief Clerk (MC 105) at (512) 239-3319.

Sincerely,

LaDonna Castañuela

Chief Clerk

LDC/tm

Enclosure

cc: Rickey Pickens-Wilson, Field Investigator, TCEQ Regional Office (MC R-12)
Terry Murphy, Enforcement Coordinator, TCEQ Enforcement Division (MC 149)