AI 286

Cindy LaFosse

From: SPOC
Sent: Thursday, June 21, 2012 9:02 AM
To: Cindy LaFosse
Subject: FW: Incident Report
Attachments: Incident Follow-Up Report - ExxonMobil Baton Rouge.pdf S12-10789

E12 T140470

From: Reese, J Derek [mailto:j.derek.reese@exxonmobil.com]
Sent: Wednesday, June 20, 2012 5:26 PM
To: Cheryl Nolan
Cc: Chavez, Mark A
Subject: Incident Report

Here is incident report as discussed – call with any questions, we will see you 8am in the morning.

Derek Reese
ExxonMobil Baton Rouge & Chalmette Refining Environmental Department
Permits & Compliance Coordination Section Supervisor
(225) 977-0609 Office
(225) 678-0673 Mobile/Pager

ExxonMobil Chemical Company
4999 Scenic Highway
Baton Rouge, Louisiana 70805-3359
P.O. Box 241
Baton Rouge, Louisiana 70821-0241

ExxonMobil
Chemical

June 20, 2012

Louisiana Department of Environmental Quality
P.O. Box 4312
Baton Rouge, LA 70821-4312
ATTENTION: Assessment Division, Emergency Response Section - SPOC
"UNAUTHORIZED DISCHARGE NOTIFICATION REPORT"

Re: Letter of Notification
Unauthorized Discharge Report
State Police Incident #12-03755
NRC #101-4519
Agency Interest Number: 286 & 2938

Dear Sir or Madam:

This letter serves as written notification of the events and circumstances surrounding the release that occurred at the ExxonMobil Baton Rouge Chemical Plant (BRCP) on June 14, 2012. Initial verbal notifications were made by R. Whitehead to the Louisiana State Police (Christy) at 5:04 AM, LDEQ via SPOC, East Baton Rouge LEPC (Shane) at 5:10 AM, and the National Response Center (P.O. Huggins) at 5:12 AM. As detailed in the attached Discharge Notification Report, the reportable quantities for benzene, toluene, cyclohexane, n-hexane, and volatile organic compounds (VOCs) were exceeded as a result of this event.

If you have any questions regarding this notification, please contact me at 977-0609.

Sincerely,

J Derek Reese
Senior Section Supervisor
Permits & Compliance Coordination Section

JLM
CP Airfile 1.1.01.12.017
Certified Mail No.: 7007 3020 0000 7233 4024

cc: Local Emergency Planning Committee
State Police, HAZMAT Unit
Department of Health and Hospitals
Bobby Mayweather, LDEQ
MSU Facilities Dept., USCG
Cheryl Nolan, LDEQ
Peter Ricca, LDEQ
Wes McQuiddy, USEPA

Certified Mail No.: 7007 3020 0000 7233 4031
Certified Mail No.: 7007 3020 0000 7233 4048

Louisiana Department of Environmental Quality
Unauthorized Discharge Notification Report (LAC I:3925)

I.	**Company Name:**	ExxonMobil Chemical Company
	Physical Address:	4999 Scenic Highway Baton Rouge, LA 70805
	Mailing Address:	P.O. Box 241 Baton Rouge, LA 70821
	Contact Name:	J. D. Reese
	Telephone Number:	(225) 977-0609
II.	**Date and Time of Verbal Notification:**	June 14, 2012 at 5:04 AM
	Official Contacted:	Christy Golden
	Officials Making Notifications:	T. L. Whiddon
	Site Identification:	Baton Rouge Chemical Plant
III.	**Date and Time Incident Started:**	June 14, 2012 at 1:54 AM
	Date and Time Incident Ended:	June 14, 2012 at 5:06 AM
	Date and Time Incident Discovered:	June 14, 2012 at 4:35 AM
	Duration:	3 hours 10 minutes

IV. **Upset Description, Cause, and Offsite Impact (If Applicable):**

On June 14, 2012, at approximately 4:35 AM, a failed bleeder plug was found at Tank 801 in BRCP's Aromatics Tankfield. Approximately 411 barrels of steam cracked naphtha reached the sewer system via this bleeder. All of the material was contained within the refinery's wastewater treatment facility. This collection facility successfully prevented any loss of of containment of liquid steam cracked naphtha offsite. The material is being pumped and moved to onsite storage to facilitate recovery and treatment of the material. All recovered liquid material is being placed in tanks 778, 21, 22, and 26, all of which are properly configured and permitted to store this material. A detailed incident investigation is being conducted to determine the root cause. Results of the investigation will be submitted per LAC 33:I.3925.A.3.

On June 14, 2012, the site began the process of understanding the constituents of the steam cracked naphtha that may have been released to the air by performing material balance calculations. During the first 24-48 hours of the incident response, the initial assumptions were that a majority of the material was being contained with miminal evaporative losses. Emissions reporting was based on the initial vaporization of material from the leak duration. Samples of the stored and liquid material were collected from multiple areas and storage facilities to help develop a more definitive material balance of the total steam cracked steam cracked naphtha released. Attachment 1 provides a summary of the sample locations utilized.

As a precaution, at 12:30 PM on June 14, 2012, approximately 400 employees and contractors in the impacted areas of the Complex were tested for potential exposure. ExxonMobil believes that none of these individuals will have any adverse impacts.

The site conducted regular monitoring at the fence line every four hours and in three unit areas on an hourly basis during incident response activities. All fence line readings remain below detection. ExxonMobil Industrial Hygiene personnel continue to conduct air monitoring and are verifying safe conditions for areas where personnel are working. A summary report of all air monitoring sample

locations and results will be provided as part of the 60-day follow-up report.

As of June 19, 2012, at 5:00 PM, preliminary calculations provided a cumulative emission estimate of 19,212 pounds of benzene, 8,557 pounds of toluene, 827 pounds of cyclohexane, 88 pounds of ethylbenzene, 1,047 pounds of hexane, and 8,440 pounds of other VOCs. Potentially an additional 9,476 pounds of benzene and 2,325 pounds of toluene may be emitted during the wastewater treatment operations as part of the recovery and treatment of the steam cracked naphtha that reached the sewer. Emissions from the ongoing processing of the steam cracked naphtha material are not expected to exceed any ambient air quality standards. The Complex will continue to monitor the emissions from processing of the material to ensure safety of personnel and community. A preliminary material balance is provided in Attachment 2. If new data or information indicates the benzene emissions estimate increases by greater than 10% over preliminary estimates provided, then the Complex will provide notification to the DSP HazMat Hotline.

Emissions from the wastewater storage and collection areas are being regularly monitored at this time to ensure safe operations for personnel. Further, fenceline monitoring will be conducted until the steam cracked naphtha material in Tank 21 and RB-1 have been treated through the Refinery Wastewater Treatment facilities. If any monitoring indicates values > 0.5 ppm of Benzene, then complex will provide notification to the DSP HazMat Hotline.

Weather conditions at the time of the incident on June 14, 2012 were as follows: 77 DegF with a 3 mph wind from the Northeast and no precipitation. Material Safety Data Sheets for Steam Cracked Naphtha and Firefighting Foam are provided in Attachment 3.

V. **Specific Pollutants Emitted and Amount Released (projected emissions):**

Compound	CAS Number	Quantity (lbs)	State Police RQ	DEQ RQ	Extremely Hazardous
Benzene	71-43-2	28,688	10 lbs	10 lbs	No
Toluene	108-88-3	10,882	1000 lbs	1000 lbs	No
Cyclohexane	110-82-7	1,110	1000 lbs	1000 lbs	No
Hexane	110-54-3	1,564	5000 lbs	1000 lbs	No
VOC	NA	12,605	NA	5000 lbs	No

VI. **Disposition:** Air

VII. **Remedial Action Taken:**

Firefighting foam was added to the sewer system every 1-2 hours to minimize the amount of evaporative losses. This foam did not impact wastewater treatment operations or capabilities in the quantities utilized during this incident. Attachment 4 provides a summary of Outfall-001 parameters.

The site conducted regular air monitoring at the fence line and unit areas for benzene. All fence line monitoring remained below detection. Air monitoring results from LDEQ SUMMA cannisters taken on June 18, 2012 confirm the Complex's monitoring observations as well.

VIII. **Specific Actions Taken and/or Planned to Prevent Recurrence:**

A detailed incident investigation is underway, and results of the investigation will be provided in the 60-day follow-up report. The investigation report will include a incident timeline of events and notifications.

Louisiana Department of Environmental Quality
Unauthorized Discharge Notification Report (LAC I:3925)

IX. **Permit Number (If Applicable):**
Air Permits: 2299-V5, , 2795-V6, Coker – 2234-V5, 2363-V3, 2341-V2
LPDES Permit: LA0005584

X. **Reporting Party Status:** Present Owner; Operator

XI. **For Discharges to the Ground or Groundwater (If Applicable):** Not Applicable

XII. **Other Responsible Parties:** N/A

XIII. **Was the Release Preventable** Yes No **Undetermined**

If No, Explain Why the Release Was Not Preventable:
A root cause investigation is underway to determine the necessary actions needed to prevent reoccurrence. Results will be provided in the next follow-up report (60-days).

IV. **Agencies Notified**

Agency	Official Notified	Time	Date	Incident #
State Police/DEQ	Christy Golden	5:04 AM	6/14/2012	12-03755
LEPC	Shane	5:10 AM	6/14/2012	N/A
NRC	Petty Officer Huggins	5:12 AM	6/14/2012	101-4519
DEQ	Rachel Mroach	8:00 AM	6/14/2012	N/A
State Police/DEQ	Christy Golden	9:35 AM	6/14/2012	12-03755
State Police	Steve Long	9:35 AM	6/14/2012	N/A
DEQ	Rachel Mroch	3:30 PM	6/15/2012	N/A
State Police	Gene Edmundson	3:42 PM	6/15/2012	N/A
State Police	Steve Long	4:00 PM	6/15/2012	N/A
State Police/DEQ	Mick	4:15 PM	6/15/2012	12-03755
DEQ	Cheryl Nolan	4:15 PM	6/16/2012	N/A
EPA	Roberto Bernier	7:30 PM	6/16/2012	N/A
State Police/DEQ	Trameka	10:15 AM	6/17/2012	12-03755
EPA	Roberto Bernier	7:18 PM	6/17/2012	N/A
EPA	Wes McQuiddy	11:30 AM	6/18/2012	N/A
DEQ	Cheryl Nolan	1:30 PM	6/18/2012	See Attachment 4
State Police/DEQ	Mick	4:52 PM	6/18/2012	12-03755
LEPC	Kasie	4:54 PM	6/18/2012	N/A
DEQ	Cheryl Nolan	8:00 AM	6/19/2012	N/A
EPA	Wes McQuiddy	1:00 PM	6/19/2012	See Attachment 4
DEQ	Cheryl Nolan	3:00PM	6/19/2012	N/A
State Police/DEQ	Mick	5:40 PM	6/19/2012	12-03755
LEPC	Kasie	5:42 PM	6/19/2012	N/A
DEQ	Cheryl Nolan	11:00 AM	6/20/2012	N/A

Documents Provided in Agency Meetings/Discussion Provided in Attachment 5

Attachment 1

Sample Locations

June 14, 2012 - Benzene Event Water Samples

The following locations are where wastewater samples were collected during the event:

1) The WCLA CPS Sewer System - this is the system that services the process operating units
2) The 13/14 Separator - this is the system that services the tankfield area that includes the Tank 801 pump
3) Tank 22 - one of the WCLA water storage tanks equipped with an internal floating roof
4) Tank 21 - one of the WCLA water storage tanks equipped with an internal floating roof
5) A 101 - a location within the WCLA unit which represents the combined total feed through the WCLA process
6) DB-201 - a location within the WCLA unit which represents material to the biox aeration basins
7) Tank 26 - an internal floating roof tank that is one of the feed tanks to the Benzene NESHAP treatment process
8) Tank 778 - a tank with an external floating roof that material was pumped to during the event
9) Rain Basin 1, an surface impoundment used to collect and store first flush rainwater prior to treatment in WCLA

Attachment 2

Preliminary Material Balance

June 14, 2012 Release Calculations

Initial Release Total = 121,845 pounds determined by Tank 801 Material Balance

	Benzene	Toluene	Cyclo-hexane	Ethyl Benzene	Hexane	Other VOC	Total
Composition of Naphtha Material Released, %	51.12	21.87	1.53	0.24	2.79	22.46	100.0
Initial Loss from Piping, pounds	62,283	26,644	1,860	290	3,397	27,372	121,845
Material Captured and Controlled in Tanks 22, 26 & 778, pounds	33,595	15,762	750	157	1,833	14,767	66,864
Material Emitted to the Atmosphere Through 6/19 @ 5PM, pounds	19,212	8,557	827	88	1,047	8,440	38,171
Material that will be emitted from Tank 21 & Rain Basin 1 *, pounds	9,476	2,325	283	44	517	4,164	16,809
** Projection - at current rates all the Tank 21 and RB-1 water should be completely processed through the wastewater treatment plant sometime between July 20 and August 1, 2012*							
Total Projected Emissions, pounds	28,688	10,882	1,110	132	1,564	12,605	54,981

Attachment 3

MSDS for Steam Cracked Naphtha and Firefighting Foam

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: **STEAM CRACKED NAPHTHA (BR)**
Product Description: Aromatic Hydrocarbon

Intended Use: Chemical feedstock

COMPANY IDENTIFICATION

Supplier: **EXXONMOBIL CHEMICAL COMPANY**
P.O. BOX 3272
HOUSTON, TX. 77253-3272 USA

24 Hour Health Emergency	(800) 726-2015
Transportation Emergency Phone	(800) 424-9300 or (703) 527-3887 CHEMTREC
Product Technical Information	(281) 870-6000/Health & Medical (281) 870-6884
Supplier General Contact	(281) 870-6000

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

Name	CAS#	Concentration*
NAPHTHA (PETROLEUM), LIGHT STEAM-CRACKED	64742-83-2	100%

Hazardous Constituent(s) Contained in Complex Substance(s)

Name	CAS#	Concentration*
1,3-BUTADIENE	106-99-0	< 2.0%
BENZENE	71-43-2	0.1 - 80%
ETHYL BENZENE	100-41-4	< 5.0%
ISOPRENE	78-79-5	< 5.0%
N-HEXANE	110-54-3	< 10.0%
NAPHTHALENE	91-20-3	< 5.0%
STYRENE	100-42-5	< 10.0%
TOLUENE	108-88-3	5.0 - 30.0%
XYLENES	1330-20-7	< 15.0%

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

SECTION 3 HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Flammable. Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited. Material can accumulate static charges which may cause an ignition.

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Irritating to skin. May cause cancer. Danger of adverse health effects by prolonged exposure. If swallowed, may be aspirated and cause lung damage. Overexposure to n-hexane may cause effects on the peripheral nerves, resulting in weakness or numbness of lower limbs. May cause central nervous system depression. Prolonged and repeated exposure to benzene may cause serious injury to blood forming organs and is associated with anemia and to the later development of acute myelogenous leukemia (AML).

Target Organs: Nervous system | Blood and/or blood-forming organs | Skin | Eye |

ENVIRONMENTAL HAZARDS

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:	Health: 3	Flammability: 3	Reactivity: 0
HMIS Hazard ID:	Health: 3*	Flammability: 3	Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. This light hydrocarbon material, or a component, may be associated with cardiac sensitization following very high exposures (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart-stimulating substances like epinephrine. Administration of such substances should be avoided.

PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE

Contains benzene; individuals with pre-existing liver disease may be more susceptible to toxic effects.
Contains hexane; individuals with pre-existing neurological disease should avoid exposure.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop a leak. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Highly flammable. Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Smoke, Fume, Incomplete combustion products, Oxides of carbon

FLAMMABILITY PROPERTIES

Flash Point [Method]: 4°C (40°F) [Estimated] [ASTM D-56]
Flammable Limits (Approximate volume % in air): LEL: 1.0 UEL: 8.0
Autoignition Temperature: 343°C (650°F) [Estimated]

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders. For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapor and, when applicable, H2S, or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to aromatic hydrocarbons are recommended. Note: gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is

possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Water Spill: Stop leak if you can do it without risk. Eliminate sources of ignition. Warn other shipping. If the Flash Point exceeds the Ambient Temperature by 10 degrees C or more, use containment booms and remove from the surface by skimming or with suitable absorbents when conditions permit. If the Flash Point does not exceed the Ambient Air Temperature by at least 10C, use booms as a barrier to protect shorelines and allow material to evaporate. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 HANDLING AND STORAGE

HANDLING

Avoid all personal contact. Prevent exposure to ignition sources, for example use non-sparking tools and explosion-proof equipment. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Loading/Unloading Temperature: [Ambient]

Transport Temperature: [Ambient]
Transport Pressure: [Ambient]

Static Accumulator: This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

STORAGE

Ample fire water supply should be available. A fixed sprinkler/deluge system is recommended. The container choice, for example storage vessel, may effect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Outside or detached storage preferred. Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge.

Storage Temperature: [Ambient]
Storage Pressure: [Ambient]

Suitable Containers/Packing: Tankers; Tank Cars; Tank Trucks; Drums
Suitable Materials and Coatings (Chemical Compatibility): Carbon Steel; Stainless Steel; Nickel Resistant Steel; Monel; Inorganic Zinc Coatings; Epoxies; Epoxy Phenolics; Viton; Polypropylene; Fluorinated Silicone Rubber; Nylon 66; Fluon; CAF Joints
Unsuitable Materials and Coatings: Vinyl Coatings; Epoxy Resin-Aluminum Combinations; Natural Rubber; Butyl Rubber; Nitrile Rubber; Ethylene-propylene Copolymers; Polythene

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Limit / Standard			NOTE	Source
1,3-BUTADIENE		OSHA Action level	0.5 ppm		N/A	OSHA Sp.Reg.
1,3-BUTADIENE		STEL	5 ppm		N/A	OSHA Sp.Reg.
1,3-BUTADIENE		TWA	1 ppm		N/A	OSHA Sp.Reg.
1,3-BUTADIENE		TWA	2 ppm		N/A	ACGIH
BENZENE		OSHA Action level	0.5 ppm		N/A	OSHA Sp.Reg.
BENZENE		STEL	5 ppm		N/A	OSHA Sp.Reg.
BENZENE		TWA	1 ppm		N/A	OSHA Sp.Reg.
BENZENE		STEL	2.5 ppm		Skin	ACGIH
BENZENE		TWA	0.5 ppm		Skin	ACGIH
ETHYL BENZENE		TWA	435 mg/m3	100 ppm	N/A	OSHA Z1
ETHYL BENZENE		TWA	20 ppm		N/A	ACGIH
ISOPRENE		TWA	10 ppm		N/A	ExxonMobil
ISOPRENE		TWA	5.6 mg/m3	2 ppm	N/A	AIHA WEEL
N-HEXANE		TWA	1800 mg/m3	500 ppm	N/A	OSHA Z1
N-HEXANE		TWA	50 ppm		Skin	ACGIH
NAPHTHALENE		TWA	50 mg/m3	10 ppm	N/A	OSHA Z1
NAPHTHALENE		STEL	15 ppm		Skin	ACGIH
NAPHTHALENE		TWA	10 ppm		Skin	ACGIH
STYRENE		Ceiling	200 ppm		N/A	OSHA Z2

STYRENE		Maximum concentration	600 ppm		N/A	OSHA Z2
STYRENE		TWA	100 ppm		N/A	OSHA Z2
STYRENE		STEL	40 ppm		N/A	ACGIH
STYRENE		TWA	20 ppm		N/A	ACGIH
TOLUENE		Ceiling	300 ppm		N/A	OSHA Z2
TOLUENE		Maximum concentration	500 ppm		N/A	OSHA Z2
TOLUENE		TWA	200 ppm		N/A	OSHA Z2
TOLUENE		TWA	20 ppm		N/A	ACGIH
XYLENES		TWA	435 mg/m3	100 ppm	N/A	OSHA Z1
XYLENES		STEL	150 ppm		N/A	ACGIH
XYLENES		TWA	100 ppm		N/A	ACGIH

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Adequate ventilation should be provided so that exposure limits are not exceeded. Use explosion-proof ventilation equipment.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Half-face filter respirator

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

Eye Protection: Chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:
Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Liquid
Color: Yellow
Odor: Aromatic
Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 60 °F): 0.88
Flash Point [Method]: 4°C (40°F) [Estimated] [ASTM D-56]
Flammable Limits (Approximate volume % in air): LEL: 1.0 UEL: 8.0
Autoignition Temperature: 343°C (650°F) [Estimated]
Boiling Point / Range: 121°C (250°F) - 232°C (450°F)
Vapor Density (Air = 1): > 1 at 101 kPa
Vapor Pressure: [N/D at 20 °C] | 180 kPa (1350 mm Hg) at 220°F
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): N/D
Solubility in Water: Negligible
Viscosity: 1 cSt (1 mm2/sec) at 40 °C [Estimated]
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: <6°C (42°F)
Melting Point: N/A
Hygroscopic: No
Decomposition Temperature: N/A

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: See Footnote

MATERIALS TO AVOID: See Footnote

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

[Footnote: This product is intended for industrial use. Exposure to heat, air, oxidizing agents and other chemicals not part of an industrial process should be avoided.]

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: Data available.	May cause central nervous system effects. Based on test data for structurally similar materials.
Irritation: Data available.	Negligible hazard at ambient/normal handling temperatures. Based on test data for structurally similar materials.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Skin	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: No end point data.	Irritating to the skin. Based on assessment of the components.
Eye	
Irritation: Data available.	Irritating and will injure eye tissue. Based on test data for structurally similar materials.

CHRONIC/OTHER EFFECTS

For the product itself:

Vapor concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic and may have other central nervous system effects. Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis.

Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. Very high exposure (confined spaces / abuse) to light hydrocarbons may result in abnormal heart rhythm (arrhythmias). Concurrent high stress levels and/or co-exposure to high levels of hydrocarbons (above occupational exposure limits), and to heart-stimulating substances like epinephrine, nasal decongestants, asthma drugs, or cardiovascular drugs may initiate arrhythmias.

Contains:

1,3- Butadiene. 1,3-Butadiene is a multi-site carcinogen in rodents. Epidemiology studies indicate an association between exposure to 1,3-butadiene and leukemia in humans. Mutations have been observed in in-vitro and in-vivo rodent assays. Although several older studies had conflicting results, a newer screening study in rats showed no adverse reproductive or developmental effects. BENZENE: Caused cancer (leukemia),

damage to the blood-producing system, and serious blood disorders from prolonged, high exposure based on human epidemiology studies. Caused genetic effects and effects on the immune system in laboratory animal and some human studies. Caused toxicity to the fetus in laboratory animal studies.
ISOPRENE: Produced mutations and cancer in laboratory animals. The relevance of these findings to humans is uncertain.
NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells, anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain.
N-HEXANE: Prolonged and/or repeated exposures to n-Hexane can cause progressive and potentially irreversible damage to the peripheral nervous system (e.g. fingers, feet, arms, legs, etc.). Simultaneous exposure to Methyl Ethyl Ketone (MEK) or Methyl Isobutyl Ketone (MIBK) and n-Hexane can potentiate the risk of adverse effects from n-Hexane on the peripheral nervous system. n-Hexane has been shown to cause testicular damage at high doses in male rats. The relevance of this effect for humans is unknown.
Styrene: Prolonged or deliberate inhalation of this product may cause nervous system damage. Repeated exposure of pregnant animals to styrene has been reported to cause adverse fetal developmental effects. Styrene oxide, a possible metabolite of styrene, has been shown to be carcinogenic in animals and styrene has been reported to produce chromosomal abnormalities. The current information does not indicate that low level or infrequent exposure to styrene is associated with cancer or other serious diseases in humans.
TOLUENE : Concentrated, prolonged or deliberate inhalation may cause brain and nervous system damage. Prolonged and repeated exposure of pregnant animals (> 1500 ppm) have been reported to cause adverse fetal developmental effects.
ETHYLBENZENE: Caused cancer in laboratory animal studies. The relevance of these findings to humans is uncertain.

Additional information is available by request.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
NAPHTHALENE	91-20-3	2, 5
ETHYL BENZENE	100-41-4	5
STYRENE	100-42-5	2, 5
1,3-BUTADIENE	106-99-0	1, 3, 6
BENZENE	71-43-2	1, 3, 6
ISOPRENE	78-79-5	2, 5

--REGULATORY LISTS SEARCHED--

1 = NTP CARC
2 = NTP SUS
3 = IARC 1
4 = IARC 2A
5 = IARC 2B
6 = OSHA CARC

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be toxic to aquatic organisms.

MOBILITY

Material -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater

solids.

PERSISTENCE AND DEGRADABILITY
Biodegradation:
Material -- Expected to be readily biodegradable.
Atmospheric Oxidation:
Material -- Expected to degrade at a moderate rate in air

BIOACCUMULATION POTENTIAL
Material -- Potential to bioaccumulate is low.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS
Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION
RCRA Information: Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP). Potential RCRA characteristics: IGNITABILITY.
TCLP (BENZENE)

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

LAND (DOT)
Proper Shipping Name: PETROLEUM DISTILLATES, N.O.S.
Hazard Class & Division: 3
ID Number: 1268
Packing Group: II
Marine Pollutant: Yes
Product RQ: 12.5 LBS - BENZENE
ERG Number: 128
Label(s): 3
Transport Document Name: UN1268, PETROLEUM DISTILLATES, N.O.S., 3, PG II, MARINE POLLUTANT (n-Hexane, Naphthalene), RQ (Benzene)

SEA (IMDG)

Proper Shipping Name: PETROLEUM DISTILLATES, N.O.S.
Hazard Class & Division: 3
EMS Number: F-E, S-E
UN Number: 1268
Packing Group: II
Marine Pollutant: Yes
Label(s): 3
Transport Document Name: UN1268, PETROLEUM DISTILLATES, N.O.S., 3, PG II, (4.4°C c.c.), MARINE POLLUTANT (n-Hexane, Naphthalene)

AIR (IATA)

Proper Shipping Name: PETROLEUM DISTILLATES, N.O.S.
Hazard Class & Division: 3
UN Number: 1268
Packing Group: II
Label(s) / Mark(s): 3
Transport Document Name: UN1268, PETROLEUM DISTILLATES, N.O.S., 3, PG II

SECTION 15 REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

Complies with the following national/regional chemical inventory requirements:: KECI, AICS, TSCA

EPCRA: This material contains no extremely hazardous substances.

CERCLA:

Chemical Name	CAS Number	Typical Value	Component RQ	Product RQ
N-HEXANE	110-54-3	< 10%	5000 LBS	50000 LBS
ETHYL BENZENE	100-41-4	< 5%	1000 LBS	20000 LBS
STYRENE	100-42-5	< 10%	1000 LBS	10000 LBS
TOLUENE	108-88-3	5.0 - 30%	1000 LBS	3333.33 LBS
ISOPRENE	78-79-5	< 5%	100 LBS	2000 LBS
NAPHTHALENE	91-20-3	< 5%	100 LBS	2000 LBS
XYLENES	1330-20-7	< 15%	100 LBS	666.67 LBS
1,3-BUTADIENE	106-99-0	< 2%	10 LBS	500 LBS
BENZENE	71-43-2	0.1 - 80%	10 LBS	12.5 LBS

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Fire. Immediate Health. Delayed Health.

SARA (313) TOXIC RELEASE INVENTORY:

Chemical Name	CAS Number	Typical Value
N-HEXANE	110-54-3	< 10%
XYLENES	1330-20-7	< 15%
ISOPRENE	78-79-5	< 5%
1,3-BUTADIENE	106-99-0	< 2%
ETHYL BENZENE	100-41-4	< 5%
BENZENE	71-43-2	0.1 - 80%
NAPHTHALENE	91-20-3	< 5%
TOLUENE	108-88-3	5.0 - 30%
STYRENE	100-42-5	< 10%

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
1,3-BUTADIENE	106-99-0	1, 3, 4, 10, 11, 13, 16, 17, 18, 19
BENZENE	71-43-2	1, 2, 4, 10, 11, 13, 15, 16, 17, 18, 19
ETHYL BENZENE	100-41-4	1, 4, 10, 13, 16, 17, 18, 19
ISOPRENE	78-79-5	10, 13, 16, 17, 18, 19
N-HEXANE	110-54-3	1, 4, 13, 16, 17, 18, 19
NAPHTHALENE	91-20-3	1, 4, 10, 13, 16, 17, 18, 19
STYRENE	100-42-5	1, 4, 13, 15, 16, 17, 18, 19
TOLUENE	108-88-3	1, 4, 11, 13, 15, 16, 17, 18, 19
XYLENES	1330-20-7	1, 4, 13, 15, 16, 17, 18, 19

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16 OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:
Revision Changes:
Section 09: Boiling Point C(F) was modified.
Section 08: Comply with applicable regulations phrase was modified.
Section 09: VAPOR PRESSURE was modified.
Section 09: Relative Density - Header was modified.
Section 09: Flash Point C(F) was modified.
Section 09: Viscosity was modified.
Section 15: List Citations Table was modified.
Section 15: CERCLA Table was modified.

Section 11: Tox List Cited Table was modified.
Section 16: NA Contains was modified.

PRECAUTIONARY LABEL TEXT:
Contains: TOLUENE; BENZENE; NAPHTHA (PETROLEUM), LIGHT STEAM-CRACKED
WARNING!
HEALTH HAZARDS
Irritating to eyes. Irritating to skin. May cause cancer. Danger of adverse health effects by prolonged exposure. If swallowed, may be aspirated and cause lung damage. Prolonged and repeated exposure to benzene may cause serious injury to blood forming organs and is associated with anemia and to the later development of acute myelogenous leukemia (AML).
Target Organs: Nervous system | Blood and/or blood-forming organs | Skin | Eye |

PHYSICAL HAZARDS
Flammable. Material can accumulate static charges which may cause an ignition.

PRECAUTIONS
Avoid all personal contact. Prevent exposure to ignition sources, for example use non-sparking tools and explosion-proof equipment. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation.

FIRST AID
Inhalation: Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Oral: Seek immediate medical attention. Do not induce vomiting.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

FIRE FIGHTING MEDIA
Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK
Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Water Spill: Stop leak if you can do it without risk. Eliminate sources of ignition. Warn other shipping. Report spills as required to appropriate authorities. If the Flash Point exceeds the Ambient Temperature by 10 degrees C or more, use containment booms and remove from the surface by skimming or with suitable absorbents when conditions permit. If the Flash Point does not exceed the Ambient Air Temperature by at least 10C, use booms as a barrier to protect shorelines and allow material to evaporate. Seek the advice of a specialist before using dispersants.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or

a waiver of rights. This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

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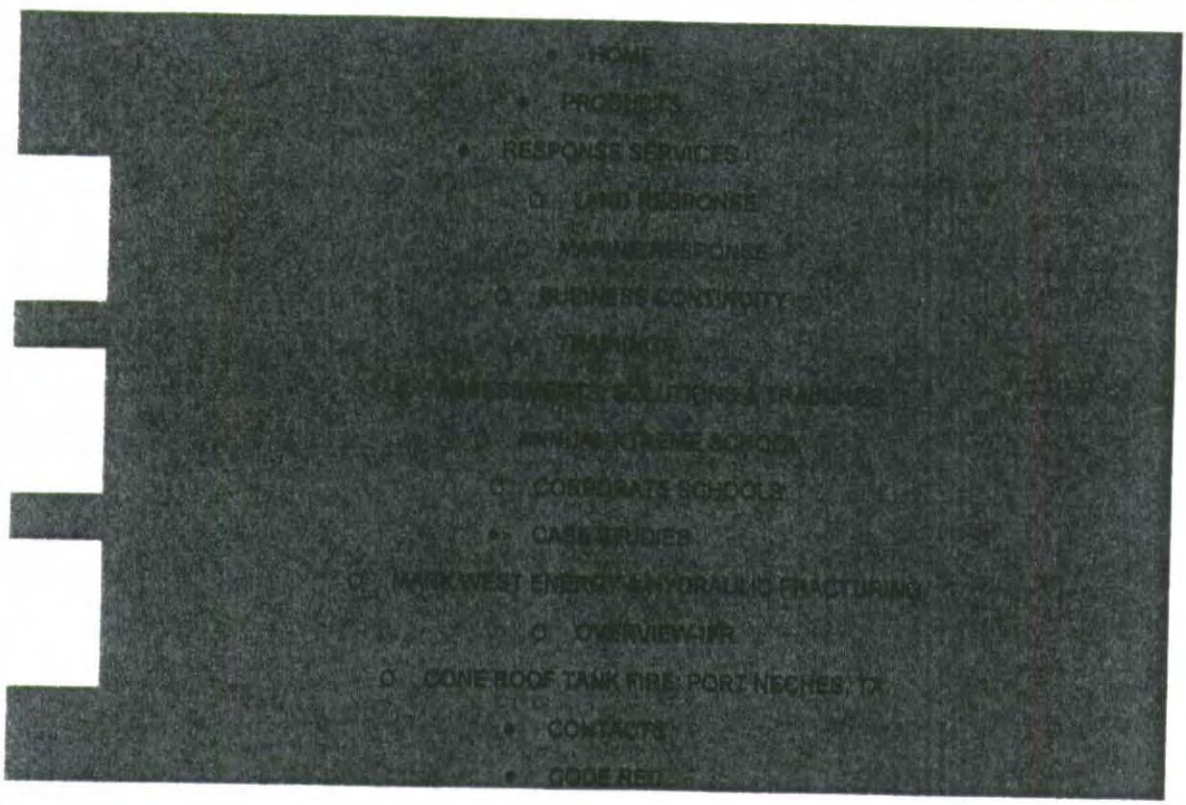
Internal Use Only
MHC: 1A, 0, 1, 2, 4, 0

DGN: 4401261AUS (1005466)

MSDS for Firefighting Foam

24HR Emergency Number **409-727-2347** or **281-999-0276**



CLICK HERE FOR PDF

FIREFIGHTING FOAM CLASS B

ThunderStormÂ® ATC AR-AFFF 1% or 3% F-601B

UL Listed at .75%

BRCP0062

MSDS for Firefighting Foam

Description

ThunderStorm® F-601B 1% or 3% ATC AR-AFFF concentrate is formulated using a new and proprietary technology. The foam concentrate has a dramatically reduced viscosity as compared to other 1% or 3% listed polar solvent type AR-AFFF concentrates on the market. This reduced viscosity enhances performance in all types of foam proportioning equipment including in-line eductors, balanced pressure systems, and built-in systems aboard CFR vehicles.

Additionally, the fire fighting performance of ThunderStorm® F-601B is superior to other AR-AFFF foam concentrates. This includes the blended gasoline additive Methyl Tertiary Butyl Ether (MTBE) which is being used as an oxygenate to make gasoline cleaner burning. ThunderStorm® F-601B offers many distinct advantages for ease of use and represents a continued commitment to quality by improving the fire performance of this type of agent on gasoline products while still maintaining high performance levels on other hydrocarbons and polar fuels.

ThunderStorm® F-601B is formulated from special fluorochemical and hydrocarbon surfactants, high molecular weight polymers and solvents. It is transported and stored as a concentrate to provide ease of use and considerable savings in weight and volume. It contains no PFOS or PFOA ingredients. It is intended for use as a 1% proportioned solution on hydrocarbon fuels and as a 3% proportioned solution on polar fuels in fresh, salt or hard water. It may also be stored and used as a premixed solution in fresh potable water only. ThunderStorm® F-601B concentrate is biodegradable.

There are three fire extinguishing mechanisms in effect when using ThunderStorm® F-601B solution on either a conventional Class B hydrocarbon fuel such as gasoline, diesel fuel, etc., or a Class B polar solvent (water miscible fuel) such as methyl alcohol, acetone, etc. First, an aqueous film is formed in the case of a conventional hydrocarbon fuel, or a polymeric membrane in the case of a polar solvent fuel. This film or membrane forms a barrier to help prevent the release of fuel vapor. Second, regardless of the fuel type, a foam blanket is formed which excludes oxygen and from which drains the liquids that form the film or the polymeric membrane. Third, the water content of the foam produces a cooling effect.

Typical Physiochemical Properties at 77°F/25°C

MSDS for Firefighting Foam

Appearance = Purple Gelled Liquid

Density = 1.05 ± 0.01 g/ml

pH = 7.0 – 8.0

Refractive Index = 1.3580 min.

Typical Viscosity = 1500 CPS*

Spreading Coefficient = 4.0 – 6.0 dynes/cm

**Brookfield® 4 Spindle at 30 rpm*

ThunderStorm® F-601B 1% or 3% ATC AR-AFFF concentrate is a non-Newtonian fluid that is both pseudoplastic and thixotropic. Because of these properties, dynamic viscosity will decrease as shear increases.

Application

ThunderStorm® F-601B can be used on either conventional Class B fuel or the polar solvent type Class B fuels. Its excellent wetting characteristics make it useful in combating Class A fires as well. Because of the low energy required to make foam, it can be used with both aspirating and non-aspirating discharge devices. To provide even greater fire protection capability, it may be used with "PKW™" dry chemical extinguishing agent without regard to the order of application. Hydro-Chem™ Technology is a recommended application for dual agent use on three dimensional fire. Due to the velocity of the dry chemical discharge, care must be taken not to submerge the polymeric membrane below the fuel surface when using twin agents on polar fuels.

Fire Performance

The fire performance of ThunderStorm® F-601B is measured primarily against Underwriters Laboratories Standard 162 (Latest Revision) and Williams Fire and Hazard Control's fire test. The UL testing focuses on fuels such as heptane and isopropyl alcohol while the Williams Fire and Hazard Control test focuses on premium unleaded gasoline. ThunderStorm® F-601B was formulated to provide superior performance on all fire tests, especially important is performance on high octane gasoline.

Foam Properties

When used with fresh, salt or hard water at the correct dilution with most conventional foam making equipment, the expansion will vary depending on the performance characteristics of the equipment. Aspirating discharge devices produce expansion ratios of 5:1 to 10:1 depending primarily on type of aspirating device and flow rate. Non-aspirating devices such as handline water fog/stream nozzles or standard sprinkler heads give expansion ratios of 2:1 to 4:1.

Medium expansion discharge devices produce typical expansion ratios between 20:1 to 60:1 depending primarily upon type of device and operating conditions.

Proportioning

ThunderStorm® F-601B can be easily proportioned (at the correct dilution) using most conventional proportioning equipment such as:

Hydro-Foam™ Nozzles

Balanced pressure and in-line balanced pressure pump proportioning equipment

Balanced pressure bladder tank proportioner

Around-the-pump and Through-the-pump proportioners

Fixed or portable (in-line) venturi proportioners

Handline nozzles with fixed induction/ pickup tubes

The minimum and maximum usable temperature for ThunderStorm® F-601B in this equipment is 35 °F (2 °C) to 120 °F (49 °C) respectively.

Storage/Shelf Life

When stored in the packaging supplied (polyethylene totes, drums or pails) and within the temperature ThunderStorm® F-601B limits specified, the shelf life of ThunderStorm® F-601B is about 20-25 years. Freezing of the product should be avoided. If, however, the product is frozen during transport or storage, it must be thawed and inspected for signs of separation. If separation has occurred, the product must be mechanically mixed until homogeneous.

When the concentrate is to be stored in an atmospheric storage tank, a .125 to .25 in. (3 – 6 mm) layer of mineral oil should be added to seal the concentrate and minimize the effects of evaporation

Compatibility

Since ThunderStorm® F-601B is a unique blend of surfactants, high molecular weight polymers, and solvents; it is recommended that it not be mixed with any other foam concentrates. Consult Williams Fire and Hazard Control with any questions of compatibility.

Materials of Construction

Compatibility

Tests have been performed with ThunderStorm® F-601B verifying its compatibility with standard carbon steel "black" pipe and pipe manufactured from various stainless steel or brass compounds. Alternative pipe, plastic fittings, and valves may be used in some cases if acceptable to the customer and/or the authority having jurisdiction.

Galvanized pipe and fittings must not be used in areas where undiluted concentrate will contact them since corrosion will result.

Please first consult Williams Fire and Hazard Control for specific guidelines concerning materials of construction.

Inspection

As with any fire extinguishing agent, ThunderStorm® F-601B, whether in the concentrate or premixed form, should be inspected periodically. NFPA 11 "Standard for Low Expansion Foam and Combined Agent Systems" requires that foam concentrate samples be submitted to the manufacturer or other qualified laboratory for quality condition testing at least annually.

Contact Williams Fire and Hazard Control for further information on annual inspection.

Approvals and Listings

Underwriters Laboratories successfully tested ThunderStorm® F-601B to the requirements contained in U.L. Standard 162, "Standard for Air-Foam Equipment and Liquid Concentrates." To receive a U.L. listing, the following tests had to be performed successfully:

Foam Quality Tests

Class B Hydrocarbon Fuel Fire Tests

MSDS for Firefighting Foam

Class B Polar Solvent Fuel Fire Tests

Foam Identification Tests

Tests of Shipping Containers

Both F-601B and FC-601A are currently UL Listed. The UL Listed Application rate for Hydrocarbons is 0.10 gpm/sq. ft. The UL Listed Application rate for Alcohols is 0.10 gpm/sq. ft.

In addition to determining agent characteristics, Underwriters Laboratories lists ThunderStorm® F-601B concentrate for use with specific hardware components that also carry the U.L. listing.

Ordering Information

ThunderStorm® F-601B is available in pails, drums, totes or bulk shipment.

5 gallon pail Part No. F601BP

55 gallon drum Part No. F601BD

265 gallon tote Part No. F601B265T

Bulk Delivery Part No, F601BG

Shipping Weight

5 gal. (19 L) pail 45 lbs. (20.4 kg)

55 gal. (208.2 L) drum 495 lbs. (224.5 kg)

265 gal. (1000 L) tote 2463 lbs. (1117 kg)

Cube: 5 gal. (19 L) pail 1.25 cu. ft. (.0354 m3)

55 gal. (208.2 L) drum 11.83 cu. ft. (.3350 m3)

265 gal. (1000 L) tote 31.50 cu. ft. (.8920 m3)

MSDS for Firefighting Foam

Environmental Impact

F-601B is biodegradable, low in toxicity and can be treated in sewage treatment plants.

Important Notice to Purchaser

All statements, technical information and recommendations contained herein are based on tests conducted with ThunderStorm® F-601B approved equipment, and are believed to be reliable. But the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose:

Sellers and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Before using, user shall determine the suitability of the product for it's intended use, and user assumes all risk and liability whatsoever in connection there within. NEITHER SELLER NOR MANUFACTURER SHALL BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY LOSS OR DAMAGE, DIRECT, INCIDENTAL, OR COINCIDENTAL, ARISING OUT OF THE USE OF OR THE INABILITY TO USE THE PRODUCT. No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.

MECHANICAL DRAWING

Engineered drawings for closer product analysis.

WEIGHTS AND MEASURES

Information regarding this product's physical attributes.

MSDS for Firefighting Foam

FOR PRODUCT INFORMATION

800-231-4613 | 409-745-3232

BRCP0069

Attachment 4

Summary of Outfall-001 Parameters

All operational laboratory data available at this time shows the water discharge is within the normal operating range for the LPDES Permit limitations.

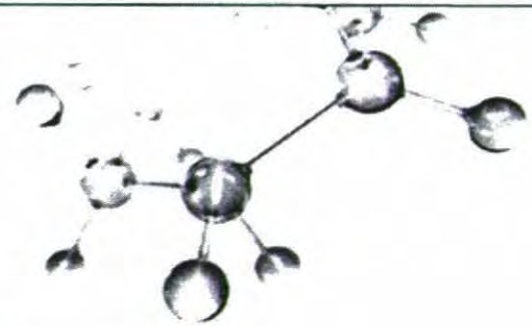
Event timing is highlighted in yellow

	Operational Parameters (Upstream of Outfall 001)				LPDES Parameters (Outfall 001)						
	COD	NH3-N	NPOC	TSS	O&G	TSS	COD	Naphthalene	BOD_5	TKN	Nitrate/Nitrite
	mg/L (ppm)				mg/L (ppm)						
6/1/2012	52	<1	19	12							
6/2/2012	58	5	20	17.2							
6/3/2012	62	<1	22	13.8	<1.1						
6/4/2012	57	<1	20	60		50	189	<0.0127	12	<1	7.3
6/5/2012	58	<1	15	27							
6/6/2012	82	<1	28	22							
6/7/2012	72	<1	22	15.4							
6/8/2012	62	<1	15	19							
6/9/2012	23	<1	18	24.4							
6/10/2012	72	<1	20	32							
6/11/2012	80	<1	28	19.2		19	86.3	<0.0103	23	<1	4.82
6/12/2012	68	<1	24	24							
6/13/2012	82	<1	27	23							
6/14/2012	83	<1	31	9							
6/15/2012	63	<1	30	11							
6/16/2012	61	<1	21	12							
6/17/2012	67	<1	24	6.4	<1.4						
6/18/2012	89	<1	26	7.6							
6/19/2012	87	<1	24								
6/20/2012	52	<1	22								
2011 Monthly Average	59	2	21	21	<2.6	14	60	<0.0200	11	2.9	11.1

Attachment 5

Documents Provided in Agency Meetings/Discussion

ExxonMobil
Refining & Supply



Environmental Incident Review
Incident #12-03755

June 18, 2012
ExxonMobil/LDEQ

Agenda

- Executive Summary
- Incident Timeline & Notifications
- Incident Response Efforts
- Incident Impacts
- Corrective Actions Taken/Planned
- Path Forward

Executive Summary

- Brief Description
  - →On June 14, 2012, at approximately 4:35 AM, a failed bleeder plug was discovered at Tank 801 releasing steam cracked naphtha to the concrete and the sewer system.
  - →Approximately 411 barrels of Naphtha were released through the bleeder to the sewer system.
  - →The liquid material was contained directly within the refinery's wastewater collection and treatment facilities.
  - →This collection system successfully prevented any loss of containment offsite. There was no spill or impact to the ground
  - →Air emissions of Benzene and Toluene exceeded their respective reportable quantities.

Incident Timeline & Notifications

June 14, 2012 - Thursday

- 0154 Leak begins through open bleeder.
- 0435 Leak is discovered by operations personnel
- 0503 Line blocked
- 0504 Release notifications initiated to Louisiana State Police/DEQ/LEPC/NRC
- 0630 IH monitoring for benzene begins
- 0645 Benzene concentration > 10 ppm at 13/14 Separator
- 0800 Additional discussion with LDEQ (Rachel Mroch)
- ~0842 Level 2 incident classification
- ~0900 LDEQ initiated community monitoring (Rachel Mroch)
- 1230 Personnel testing for benzene exposure initiated
- ~1300 Foam operations initiated mitigate evaporation potential

June 15, 2012 - Friday

- Recovery and treatment operations continue as well as fence line and unit air monitoring.

June 16, 2012 - Saturday

- 1645 LDEQ notifies site of complaint investigation (Cheryl Nolan/Derek Reese)
- 1703 LDEQ onsite for incident review and conduct SUMMA canister monitoring and VOC monitoring.

June 17, 2012 - Sunday

- Recovery and treatment operations continue as well as fence line and unit air monitoring.

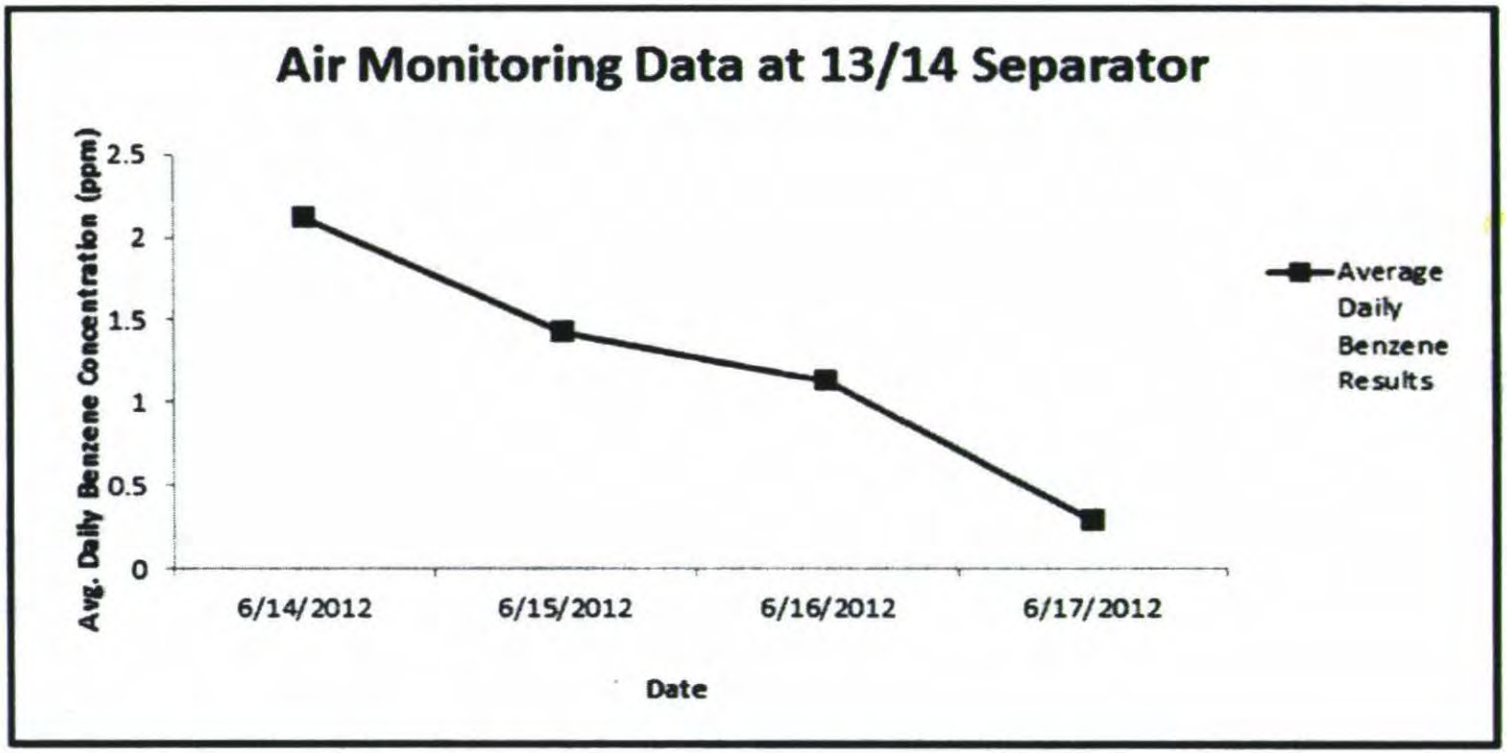
Incident Response Efforts

- All of the liquid material was contained directly within the refinery's wastewater collection and treatment facilities. This collection system successfully prevented any loss of containment offsite. There was no spill or impact to the ground.
- Use of foam to mitigate vapor release potential on separators.
- Conducted flushing the effected sewer system and processing the water using the Refinery's wastewater treatment facility as designed. The recovered naphtha material has been stored in onsite storage to facilitate further recovery and treatment of the material.
- The site conducted regular monitoring at fence line every four hours and in three unit areas on an hourly basis. All fence line readings remain below detection. ExxonMobil Industrial Hygiene personnel continue to conduct air monitoring and are verifying safe conditions for areas where personnel are working.

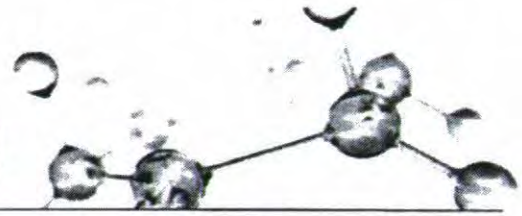
Incident Impacts

- Environmental Impact – Emissions to Atmosphere Only
  - All of the liquid material was contained directly within the refinery's wastewater collection and treatment facilities. This collection system successfully prevented any loss of containment offsite. There was no spill or impact to the ground.
  - Approximately 121.8 klbs of naphtha material released from Tank 801. Approximately 60% of the material captured and emissions controlled.
  - Preliminary calculations provide an emissions estimate of ~21.6 klbs of Benzene and ~ 5.8 klbs of Toluene. Additional emissions will occur from wastewater treatment operations.
- Personnel Exposure
  - As a precaution, approximately 400 employees and contractors in the impacted area were tested for potential exposure.
  - We anticipate test results will confirm that none of these individuals have been exposed to harmful levels. Initial test results (96 individuals) received indicate negative exposure issues.
- Community Impact - NONE
  - All fence line readings remain below detection throughout incident
  - Since this incident began, we have not received any neighbor inquiries or complaints
  - LDEQ also conducted fence line and neighborhood monitoring with no detectable emissions or concerns.
  - LDEQ conducted a second site visit on June 16, 2012 to review site's response efforts and collected onsite air samples for analysis

Incident Impacts – Cont'd



Corrective Actions Taken/Planned



- Recovered material placed in Tanks 21, 22, 26 & 778. All tanks properly configured and permitted to storage this material.
- Collected storm water material stored in Rain Basin 1 (RB-1).
- Maximize recovery of hydrocarbon layer from tanks to return to process.
- Feed aqueous material from Tanks 22, 26, and 778 to Benzene Recovery Unit
- Tank 21 and RB-1 aqueous material will be treated through Refinery Wastewater Treatment Unit.

Path Forward

1. Consensus to issue "All Clear" on incident response and transition to recovery phase of operations.

2. Treatment of material through WCLA will be within current air operating permit limitations; however additional interim limits may be required later in 2012.

3. No exceedances of LPDES outfall limitations have occurred or are expected.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIELD INTERVIEW FORM

AGENCY INTEREST#: 1286 + 2638 INSPECTION DATE: 6/21/2012 TIME OF ARRIVAL: 0935

ALTERNATE ID#: _____ (ID Type/Number) DEPARTURE DATE: 6/21/2012 TIME OF DEPARTURE: 1545

FACILITY NAME: ExxonMobil Refinery + ExxonMobil Chem Plant PH #: (225) 977-0609

LOCATION: 4045 Scenic Hwy Baton Rouge, LA 70805

PARISH NAME: East Baton Rouge

RECEIVING STREAM (BASIN/SUBSEGMENT): _____

MAILING ADDRESS: P.O. Box 551 (Street/P.O. Box) Baton Rouge (City) LA (State) 70821 (ZIP)

FACILITY REPRESENTATIVE: Derek Reese TITLE: Senior Section Supervisor

FACILITY REPRESENTATIVE PHONE NUMBER: (225) 977-0609

NAME, TITLE, ADDRESS and TELEPHONE of RESPONSIBLE OFFICIAL (if different from above): _____

INSPECTION TYPE: PCE/CEI PROGRAM INVOLVED: (AIR) (WASTE) (WATER) OTHER _____

INSPECTOR'S OBSERVATIONS: (e.g. AREAS AND EQUIPMENT INSPECTED, PROBLEMS, DEFICIENCIES, REMARKS, VERBAL COMMITMENTS FROM FACILITY REPRESENTATIVES)

Jason Fontenot, Karen Price, Don Weinell, and Terry Dedon conducted a focused multi-media inspection @ ExxonMobil Refinery regarding incident #140470 (Naphtha release from Tank #801). The focus of the PCE inspection was to understand the cause and effects of the release as it pertains to Air, water, hazardous waste, + Solid waste. Derek Reese, Stan Labot, + Katie DeJean assisted LDEQ with the investigation. A root cause investigation is still underway by ExxonMobil Refinery to determine Actions needed to prevent a reoccurrence of a similar event.

AREAS OF CONCERN:

REGULATION	EXPLANATION	CORRECTED?
_____	_____	YES NO
_____	_____	YES NO

PHOTOS TAKEN: ☑ YES ☐ NO SAMPLES TAKEN: ☐ YES ☑ NO (Attach Chain-of-custody)

RECEIVED BY: SIGNATURE: D Reese

PRINT NAME: J Derek Reese

(NOTE: SIGNATURE DOES NOT NECESSARILY INDICATE AGREEMENT WITH INSPECTOR'S STATED OBSERVATIONS)

INSPECTOR(S): Jason Fontenot, Karen Price, Terry Dedon, Don Weinell

CROSS REFERENCE: _____

ATTACHMENTS: _____

REVIEWER: Dolly J. Maginnis

NOTE: The Information contained on this form reflects only the preliminary observations of the inspector(s). It should not be interpreted as a final determination by the Department of Environmental Quality or any of its officers or personnel as to any matter, including, but not limited to, a determination of compliance or lack thereof by the facility operator with any requirements of statutes regulations or permits. Each day of non-compliance constitutes a separate violation of the regulations and/or the Louisiana Environmental Quality Act.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
INSPECTOR OBSERVATIONS (cont'd)

AGENCY INTEREST#: 2638/286 ALTERNATE ID#: INSPECTION DATE: 6/21/2012

FACILITY NAME: ExxonMobil Refinery / ExxonMobil Chemical Plant

INSPECTOR OBSERVATIONS CONT'd:

* List of requested documents related to Incident # 140470:

1) Graphs and calculations for Tank # 801 material balance. (received)
2) ~~H~~ Air monitoring report for benzene & THC (Monitoring points maps, and results) (Draft copy was provided)
3) Water monitoring results for 6/20/2012 and all future monitoring results @ outfall 001. (6/20/2012 results provided)
4) Maintenance & repair history on valve # 381737 from 2000 to present (LDAR monitoring results) (provided by the facility)
5) Copy of the complete investigation report including root cause analysis & calculations
6) All sediment/sludge sampling for Rain Basin #1 and 13/14 seperator cokE. Any sampling results and waste determinations.
7) Leak calculations for Tank # 801 (received)
8) Timeframe from conveying the material from Tank 801 → 13/14 Seperator → wastewater treatment tankage. → WCLA → Benzene recovery unit.

Hazardous Waste:

The facility was notified as a large quantity generator under EPA ID # LAD062662887 for refinery and LAD000812818 for the chemical plant. The release waste stream from Tank 801 is from the chemical facility. The Rain Basin #1 and the stormwater diversion facilities (13/14 seperator) is operated under refineries WWT plant (WCLA). The release occurred directly to the WWT sewer system and no Soil contamination occurred from the event. A proper waste determination was requested for the 13/14 Seperator coke sludge and the Rain Basin #1 Sediments related to the release (#6)

Air:

1) Final Calculations for benzene, toluene, cyclohexane, Hexane, and VOCs.

Water: in conjunction with this investigation, a permit compliance inspection was conducted for LPDES permit LA0005584. A separate FIF will be provided for this activity.

INITIALS OF RECEIPT

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
INSPECTOR OBSERVATIONS (cont'd)

AGENCY INTEREST#: 2638 / 286 ALTERNATE ID#: _____ INSPECTION DATE: 6.21.12

FACILITY NAME: ExxonMobil Refinery / ExxonMobil Chemical Plant

INSPECTOR OBSERVATIONS CONT'd:

SOLID WASTE:

The naphtha release from Tank #801 went to the facility storm water system (see photos). The ~~TO~~ Naphtha flowed to the 13/14 Separator which then flowed to tank # 22 then #21. While the naphtha was being pumped to tanks 22 & 21 a rain event occured which overwhelmed the facility's ability to pump the liquid to the tanks so the material was diverted to the Rain Basin I surface impoundment which is permitted under Solid Waste permit # P-0402. The facility calculated 1,712 lbs of benzene and 419 lbs of toluene went into the basin. The basin water was sampled on 6.16.12 by the facility with a result of 29.4 ppm for benzene and 7.2 ppm for toluene. The basin is not required to be sampled until the water is going to be pumped to the WWTP. From the basin the ~~TO~~ water will be pumped to the WWTP for treatment before discharge through outfall 001. The facility will perform soil samples in the basin and will provide the results to the Department.

No further comment at this time.

INITIALS OF RECEIPT _____

Supplemental Field Interview Form (FIF)

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIELD INTERVIEW FORM

AGENCY INTEREST#: 286 & 2638 **INSPECTION DATE:** 6/21/2012 **TIME OF ARRIVAL:** 0935

ALTERNATE ID#: _____ **DEPARTURE DATE:** 6/21/2012 **TIME OF DEPARTURE:** 1545
(ID Type/Number)

FACILITY NAME: ExxonMobil Refinery & ExxonMobil Chemical Plant **PHONE #:** (225) 977-0609

LOCATION: 4045 Scenic Hwy Baton Rouge, Louisiana 70805

PARISH: East Baton Rouge

RECEIVING STREAM (BASIN/SUBSEGMENT): _____

MAILING ADDRESS: P. O. Box 551 Baton Rouge La 70821
(Street/P.O. Box) (City) (State) (Zip)

FACILITY REPRESENTATIVE: Derek Reese **TITLE:** Senior Section Supervisor

FACILITY REPRESENTATIVE PHONE NUMBER: (225) 977-0609

NAME, TITLE, ADDRESS and TELEPHONE of RESONSIBLE OFFICIAL (if different from above):
Paul F Stratford/ Site Manager (225) 977-4221

INSPECTION TYPE: PCE **PROGRAM INVOLVED:** AIR ☒ WASTE ☒ WATER ☒ OTHER: _____

INSPECTOR'S OBSERVATIONS: (e.g. AREAS AND EQUIPMENT INSPECTED, PROBLEMS, DEFICIENCIES, REMARKS, VERBAL COMMITMENTS FROM FACILITY REPRESENTATIVES)

On June 21, 2012, a focused multi-media Partial Compliance Evaluation (PCE) inspection was conducted at ExxonMobil Refinery/Chemical Plant regarding incident # 140470 (Naphtha release from Tank # 801). The following Areas of Concern (AOCs) have been noted regarding the Naphtha incident:

1) Rain Basin 1 is not permitted to receive offsite generated wastes/waste water. On June 14, 2012 RB 1 received storm water mixed with approximately 2706 lbs of the steam cracked naphtha release which originated from Tank-801 located on ExxonMobil Chemical Plant property. The storm water drain in the pump pit that services Tank-801 drains to the underground sewer system which is connected to/serviced by the WWTP of the ExxonMobilRefinery. The naphtha release from Tank-801 occurred in the pump pit and flowed directly into the [pump pit's] storm water drain of which a portion ended up in RB I. This is a violation of ExxonMobil Refinery's solid waste permit # P-0402 which states on page 21 "The RB-1

AREAS OF CONCERN:

REGULATION	EXPLANATION	CORRECTED?
		YES ☐ NO ☐
		YES ☐ NO ☐

PHOTOS TAKEN: YES ☐ NO ☒ **SAMPLES TAKEN:** YES ☐ NO ☒ (Attach Chain-of-Custody)

RECEIVED BY SIGNATURE: Copy faxed to Derek Reese

PRINT NAME: _____
(NOTE: SIGNATURE DOES NOT INDICATE AGREEMENT WITH INSPECTOR'S NOTES)

INSPECTOR(S): Jason Fontenot, Karen Price, Terry Dedon **CROSS REFERENCE:** _____

REVIEWER: Don Weinell **ATTACHMENTS:** _____

NOTE: The information contained on this form reflects only the preliminary observations of the inspector(s). It should not be interpreted as a final determination by the Department of Environmental Quality or any of its officers or personnel as to any matter, including, but not limited to, a determination of compliance or lack thereof by the facility operator with any requirements of statutes regulations or permits. Each day of non-compliance constitutes a separate violation of the regulations and/or the Louisiana Environmental Quality Act.

REVISED: 02/03/2003

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
INSPECTOR OBSERVATIONS (cont'd)

AGENCY INTEREST#: 286 & 2638 **ALTERNATE ID#:** _____ **INSPECTION DATE:** 6/21/2012

FACILITY NAME: ExxonMobil Refinery & ExxonMobil Chemical Plant

INSPECTOR OBSERVATIONS CONT'd:

does not receive wastes from offsite and the types of wastes received are from industrial processes which seldom change". Page 8 states "The ExxonMobil Baton Rouge Refinery does not accept any waste from outside the plant. Any waste accumulated is generated from onsite refinery operations. These wastes consist of wastewater and solids, which settle out of the wastewater in the surface impoundments". [LAC 33:VII.901.A & LAC 33:VII.709.B.6.a]

2) An uncontrolled waste stream (steam cracked naphtha/storm water mixture) was allowed to flow into RB I in violation of permit # P-0402 which states on page 21 "Influent to the impoundment is piped in a flow-through manner precluding the introduction of any uncontrolled waste streams, thus no hazardous waste is managed by the facility". On page 19 the permit states "Wastewaters received into these facilities are via flow through pipingsystems and in emergencies to underground sewers which preclude the introduction of any other waste types. The refinery has quality assurance/quality control measures (i.e. containment, inspections, waste analysis sampling, generator knowledge, etc.) in place to ensure that only non-hazardous wastes are placed in these facilities". [LAC 33:VII.901.A & LAC 33:VII.709.B.6.a]

3) RB 1 is not permitted to receive/store/process steam cracked naphtha. On June 14, 2012 RB 1 received a mixture of approximately 2706 lbs of steam cracked naphtha and storm water dueto a leak in the pump pit servicing Tank-801 located in the ExxonMobil Chemical Plant. Page 6 of the ExxonMobil Refinery's solid waste permit # P-0402 states "RB-1 is a below grade, clay lined earthen impoundment located within the boundaries of the refinery, that accepts only wet weather storm water runoff and incidental non-process waste water entrained in the storm water that is utility in nature (such as cooling tower blowdown, steam condensate, etc.). [LAC 33:VII.901.A & LAC 33:VII.709.B.6.a]

4) This facility (RB 1) received a product/waste water mixture as a result of the release. Analytical sampling at the outlet of RB-1 (feed to waste water treatment) measured 29.4 ppm total benzene. The point of generation of hazardous waste, i.e., the benzene (D018) characteristic hazardous waste water occurs when the product/water mixture exits the RB-1 unit. LAC 33:VII.713.D.1.a strictly prohibits the receipt of hazardous waste in a solid waste permitted surface impoundment. Page 19 of the ExxonMobil Refinery's solid waste permit # P-0402 states "Wastewaters received into these facilities are via flow through piping systems andin emergencies to underground sewers which preclude the introduction of any other waste types. The refinery has quality assurance/quality control measures (i.e. containment,inspections, waste analysis sampling, generator knowledge, etc.) in place to ensure that only non-hazardous wastes are placed in these facilities". [LAC 33:VII.901.A & LAC 33:VII.713.D.1.a]

5) The RB-1 is a below grade surface clay lined solid waste impoundment and does not meet the definition of a tank nor is it permitted to store hazardous waste. The facility must conduct a proper determination of the waste released to and stored within the RB-1. The facility has not provided proper waste determination to determine if a solid waste is a hazard. [LAC 33:V.1103.B]

INITIALS OF RECEIPT _____

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
INSPECTOR OBSERVATIONS (cont'd)

AGENCY INTEREST#: 286 & 2638 **ALTERNATE ID#:** _____ **INSPECTION DATE:** 6/21/2012

FACILITY NAME: ExxonMobil Refinery & ExxonMobil Chemical Plant

INSPECTOR OBSERVATIONS CONT'd:

6) A preventable release occurred where approximately 441 bbls of stream cracked naphtha was released from an open bleeder line. The release was preventable because the facility reported that a discharge bleeder valve from the Araomatics P-52A/B was not fully closed. They estimated that the valve was >50% open for an extended period of time. This caused pressure on the plug and it became unthreaded and dislodged causing the release. The steam cracked naphtha released from Tank-801 in the Baton Rouge Chemical Plant's Aromatic Tankfield permit # 2299-V5 went to the facility storm water system. As of June 19, 2012, at 5:00PM, preliminary calculations provided a cumulative emission estimate of 19,212 pounds of benzene, 8,557 pounds of toluene, 827 pounds of cyclohexane, 88 pounds of ethylbenzene, 1,047 pounds of hexane, and 8,440 pounds of other volatile organic compounds(VOCs). Potentially an additional 9,476 pounds of benzene and 2,325 pounds of toluene may be emitted during the wastewater treatment operations as part of the recovery and treatment of the steam cracked naphtha that reached the sewer. [LAC 33:III.501.C.4 & LAC 33:III.905.A]

7) An updated notification was not made by the facility at the time that the facility became aware that a substantial amount of material was release (441 bbls.) than was initially reported. The hotline must be notified of any adverse change in the nature or rate of the discharge. [LAC 33:I.3915.A.3]

INITIALS OF RECEIPT _____

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIELD INTERVIEW FORM

AGENCY INTEREST#: 286 & 2638 **INSPECTION DATE:** 6/21/2012 **TIME OF ARRIVAL:** 0935

ALTERNATE ID#: _____ **DEPARTURE DATE:** 6/21/2012 **TIME OF DEPARTURE:** 1545
(ID Type/Number)

FACILITY NAME: ExxonMobil Refinery & ExxonMobil Chemical Plant **PHONE #:** (225) 977-0609

LOCATION: 4045 Scenic Hwy Baton Rouge, Louisiana 70805

PARISH: East Baton Rouge

RECEIVING STREAM (BASIN/SUBSEGMENT): _____

MAILING ADDRESS: P. O. Box 551 (Street/P.O. Box) Baton Rouge (City) La (State) 70821 (Zip)

FACILITY REPRESENTATIVE: Derek Reese **TITLE:** Senior Section Supervisor

FACILITY REPRESENTATIVE PHONE NUMBER: (225) 977-0609

NAME, TITLE, ADDRESS and TELEPHONE of RESONSIBLE OFFICIAL (if different from above): _____
Paul F Stratford/ Site Manager (225) 977-4221

INSPECTION TYPE: PCE **PROGRAM INVOLVED:** AIR ☒ WASTE ☒ WATER ☒ OTHER: _____

INSPECTOR'S OBSERVATIONS: (e.g. AREAS AND EQUIPMENT INSPECTED, PROBLEMS, DEFICIENCIES, REMARKS, VERBAL COMMITMENTS FROM FACILITY REPRESENTATIVES)

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AREAS OF CONCERN:

REGULATION	EXPLANATION	CORRECTED?
		YES ☐ NO ☐
		YES ☐ NO ☐

PHOTOS TAKEN: YES ☐ NO ☒ **SAMPLES TAKEN:** YES ☐ NO ☒ (Attach Chain-of-Custody)

RECEIVED BY SIGNATURE: _____ 7/18/12

PRINT NAME: Derek Reese
(NOTE: SIGNATURE DOES NOT INDICATE AGREEMENT WITH INSPECTOR'S NOTES)

INSPECTOR(S): Jason Fontenot, Karen Price, Terry Dedon, Don Weinell **CROSS REFERENCE:** _____

ATTACHMENTS: _____

REVIEWER: _____

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LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
INSPECTOR OBSERVATIONS (cont'd)

AGENCY INTEREST#: 286 & 2638 **ALTERNATE ID#:** _____ **INSPECTION DATE:** 6/21/2012

FACILITY NAME: ExxonMobil Refinery & ExxonMobil Chemical Plant

INSPECTOR OBSERVATIONS CONT'd:

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5) The RB-1 is a below grade surface clay lined solid waste impoundment and does not meet the definition of a tank nor is it permitted to store hazardous waste. The facility must conduct a proper determination of the waste released to and stored within the RB-1. The facility has not provided proper waste determination to determine if a solid waste is a hazard. [LAC 33:V.1103.B]

INITIALS OF RECEIPT _____

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
INSPECTOR OBSERVATIONS (cont'd)

AGENCY INTEREST#: 286 & 2638 **ALTERNATE ID#:** _____ **INSPECTION DATE:** 6/21/2012

FACILITY NAME: ExxonMobil Refinery & ExxonMobil Chemical Plant

INSPECTOR OBSERVATIONS CONT'd:

6) A preventable release occurred where approximately 441 bbls of stream cracked naphtha was released from an open bleeder line. The release was preventable because the facility reported that a discharge bleeder valve from the Araomatics P-52A/B was not fully closed. They estimated that the valve was >50% open for an extended period of time. This caused pressure on the plug and it became unthreaded and dislodged causing the release. The steam cracked naphtha released from Tank-801 in the Baton Rouge Chemical Plant's Aromatic Tankfield permit # 2299-V5 went to the facility storm water system. As of June 19, 2012, at 5:00PM, preliminary calculations provided a cumulative emission estimate of 19,212 pounds of benzene, 8,557 pounds of toluene, 827 pounds of cyclohexane, 88 pounds of ethylbenzene, 1,047 pounds of hexane, and 8,440 pounds of other volatile organic compounds(VOCs). Potentially an additional 9,476 pounds of benzene and 2,325 pounds of toluene may be emitted during the wastewater treatment operations as part of the recovery and treatment of the steam cracked naphtha that reached the sewer. [LAC 33:III.501.C.4 & LAC 33:III.905.A]

7) An updated notification was not made by the facility at the time that the facility became aware that a substantial amount of material was release (441 bbls.) than was initially reported. The notline must be notified of any adverse change in the nature or rate of the discharge. [LAC 33:I.3915.A.3]

INITIALS OF RECEIPT _____

ExxonMobil Chemical Company
Baton Rouge Chemical Plant
4999 Scenic Highway
Baton Rouge, Louisiana 70805-3359
P.O. Box 241
Baton Rouge, Louisiana 70821-0241

ExxonMobil Chemical

August 14, 2012

Louisiana Department of Environmental Quality
P.O. Box 4312
Baton Rouge, LA 70821-4312
ATTENTION: Assessment Division, Emergency Response Section - SPOC
"UNAUTHORIZED DISCHARGE NOTIFICATION REPORT"

RECEIVED
AUG 20 2012
DEQ
Single Point of Contact

Re: Letter of Notification
Unauthorized Discharge Report
State Police Incident #12-03755
NRC #101-4519
Agency Interest Number: 286 & 2638

Dear Sir or Madam:

This letter serves as *the 60-day follow-up* to the written notification of the events and circumstances surrounding the release that occurred at the ExxonMobil Baton Rouge Chemical Plant (BRCP) on June 14, 2012. *All updates to the report are italicized.* Initial verbal notifications were made by R. Whitehead to the Louisiana State Police (Christy) at 5:04 AM, LDEQ via SPOC, East Baton Rouge LEPC (Shane) at 5:10 AM, and the National Response Center (P.O. Huggins) at 5:12 AM. As detailed in the attached Discharge Notification Report, the reportable quantities for benzene, toluene, cyclohexane, n-hexane, and volatile organic compounds (VOCs) were exceeded as a result of this event.

If you have any questions regarding this notification, please contact me at 977-0609.

Sincerely,

J Derek Reese
Senior Section Supervisor
Permits & Compliance Coordination Section

MROCH, RACHEL
ER
S12-10789
T140470

JLM
CP Airfile 1.1.01.12.017u
Certified Mail No.: 7011 0110 0001 3305 7040

cc: Local Emergency Planning Committee
State Police, HAZMAT Unit
Department of Health and Hospitals
Bobby Mayweather, LDEQ
MSU Facilities Dept., USCG
Cheryl Nolan, LDEQ
Peter Ricca, LDEQ
Wes McQuiddy, USEPA

Certified Mail No.: 7011 0110 0001 3305 7057
Certified Mail No.: 7011 0110 0001 3305 7064

Louisiana Department of Environmental Quality
Unauthorized Discharge Notification Report (LAC I:3925)

I.	**Company Name:**	ExxonMobil Chemical Company
	Physical Address:	4999 Scenic Highway Baton Rouge, LA 70805
	Mailing Address:	P.O. Box 241 Baton Rouge, LA 70821
	Contact Name:	J. D. Reese
	Telephone Number:	(225) 977-0609
II.	**Date and Time of Verbal Notification:**	June 14, 2012 at 5:04 AM
	Official Contacted:	Christy Golden
	Officials Making Notifications:	R. T. Whitehead
	Site Identification:	Baton Rouge Chemical Plant
III.	**Date and Time Incident Started:**	June 14, 2012 at 1:54 AM
	Date and Time Incident Ended:	June 14, 2012 at 5:06 AM
	Date and Time Incident Discovered:	June 14, 2012 at 4:35 AM
	Duration:	3 hours 10 minutes

IV. **Upset Description, Cause, and Offsite Impact (If Applicable):**

On June 14, 2012, at approximately 4:35 AM, a failed bleeder plug was found at Tank 801 in BRCP's Aromatics Tankfield. Approximately 411 barrels of steam cracked naphtha reached the sewer system via this bleeder. All of the material was contained within the refinery's wastewater treatment facility. This collection facility successfully prevented any loss of of containment of liquid steam cracked naphtha offsite. The material was being pumped and moved to onsite storage to facilitate recovery and treatment of the material. All recovered liquid material was placed in tanks 778, 21, 22, and 26, all of which are properly configured and permitted to store this material. *After a detailed incident investigation was completed it was determined that the root cause of the event was due to the associated valve being partially open. The bleeder plug vibrated loose over time causing the material to enter the sewer system.*

On June 14, 2012, the site began the process of understanding the constituents of the steam cracked naphtha that may have been released to the air by performing material balance calculations. During the first 24-48 hours of the incident response, the initial assumptions were that a majority of the material was being contained with miminal evaporative losses. Emissions reporting was based on the initial vaporization of material from the leak duration. Samples of the stored and liquid material were collected from multiple areas and storage facilities to help develop a more definitive material balance of the total steam cracked steam cracked naphtha released. Attachment 1 provides a summary of the sample locations utilized.

As a precaution, at 12:30 PM on June 14, 2012, approximately 400 employees and contractors in the impacted areas of the Complex were tested for potential exposure. Test results were satisfactory and demonstrates no affect on these individuals.

The site conducted regular monitoring at the fence line every four hours and in three unit areas on an hourly basis during incident response activities. All fence line readings remain below detection. ExxonMobil Industrial Hygiene personnel conducted air monitoring and verified safe conditions for

areas where personnel were working. Attachment 2 provides a summary report of all air monitoring sample locations and results.

As of June 19, 2012, at 5:00 PM, preliminary calculations provided a cumulative emission estimate of 19,212 pounds of benzene, 8,557 pounds of toluene, 827 pounds of cyclohexane, 88 pounds of ethylbenzene, 1,047 pounds of hexane, and 8,440 pounds of other VOCs. Potentially an additional 9,476 pounds of benzene and 2,325 pounds of toluene may be emitted during the wastewater treatment operations as part of the recovery and treatment of the steam cracked naphtha that reached the sewer. *Emissions from the processing of the steam cracked naphtha material did not exceed any ambient air quality standards.* The Complex monitored the emissions from processing of the material to ensure safety of personnel and community.

As of July 19, 2012 final calculations provided a cumulative emission estimate of 31,022 pounds of benzene, 13,081 pounds of toluene, 1,431 pounds of cyclohexane, 27 pounds of ethylbenzene, 2,588 pounds of hexane, 22 pounds of isoprene, and 14,022 pounds of other VOCs. The final material balance can be found in Attachment 3

Emissions from the wastewater storage and collection areas *were* regularly monitored to ensure safe operations for personnel. Further, fenceline monitoring *was conducted* until the steam cracked naphtha material in Tank 21 and RB-1 *was* treated treated through the Refinery Wastewater Treatment facilities.

Weather conditions at the time of the incident on June 14, 2012 were as follows: 77 DegF with a 3 mph wind from the Northeast and no precipitation.

V. **Specific Pollutants Emitted and Amount Released (projected emissions):**

Compound	CAS Number	Quantity (lbs)	State Police RQ	DEQ RQ	Extremely Hazardous
Benzene	71-43-2	*31,022*	10 lbs	10 lbs	No
Toluene	108-88-3	*13,081*	1000 lbs	1000 lbs	No
Cyclohexane	110-82-7	*1,431*	1000 lbs	1000 lbs	No
Hexane	110-54-3	2,588	5000 lbs	1000 lbs	No
Ethylbenzene	*100-41-4*	*27*	*1000 lbs*	*1000 lbs*	*No*
Isoprene	*78-79-5*	*22*	*100 lbs*	*NA*	*No*
VOC	NA	*14,022*	NA	5000 lbs	No

VI. **Disposition:** Air

VII. **Remedial Action Taken:**

Firefighting foam was added to the sewer system every 1-2 hours to minimize the amount of evaporative losses. This foam did not impact wastewater treatment operations or capabilities in the quantities utilized during this incident.

The site conducted regular air monitoring at the fence line and unit areas for benzene. All fence line monitoring remained below detection. Air monitoring results from LDEQ SUMMA cannisters taken on June 16, 2012 confirm the Complex's monitoring observations as well.

Louisiana Department of Environmental Quality
Unauthorized Discharge Notification Report (LAC I:3925)

VIII. Specific Actions Taken and/or Planned to Prevent Recurrence:

Corrective actions to prevent recurrence will be stewarded under Consolidated Compliance Order and Notice of Potential Penalty Enforcement Tracking No. AE-CN-12-00835.

IX. **Permit Number (If Applicable):**
Air Permits: 2299-V5, , 2795-V6, Coker – 2234-V5, 2363-V3, 2341-V2
LPDES Permit: LA0005584

X. **Reporting Party Status:** Present Owner; Operator

XI. **For Discharges to the Ground or Groundwater (If Applicable):** Not Applicable

XII. **Other Responsible Parties:** N/A

XIII. **Was the Release Preventable** *Yes* No

If No, Explain Why the Release Was Not Preventable:

IV. **Agencies Notified**

Agency	Official Notified	Time	Date	Incident #
State Police/DEQ	Christy Golden	5:04 AM	6/14/2012	12-03755
LEPC	Shane	5:10 AM	6/14/2012	N/A
NRC	Petty Officer Huggins	5:12 AM	6/14/2012	101-4519
DEQ	Rachel Mroach	8:00 AM	6/14/2012	N/A
State Police/DEQ	Christy Golden	9:35 AM	6/14/2012	12-03755
State Police	Steve Long	9:35 AM	6/14/2012	N/A
DEQ	Rachel Mroch	3:30 PM	6/15/2012	N/A
State Police	Gene Edmundson	3:42 PM	6/15/2012	N/A
State Police	Steve Long	4:00 PM	6/15/2012	N/A
State Police/DEQ	Mick	4:15 PM	6/15/2012	12-03755
DEQ	Cheryl Nolan	4:15 PM	6/16/2012	N/A
EPA	Roberto Bernier	7:30 PM	6/16/2012	N/A
State Police/DEQ	Trameka	10:15 AM	6/17/2012	12-03755
EPA	Roberto Bernier	7:18 PM	6/17/2012	N/A
EPA	Wes McQuiddy	11:30 AM	6/18/2012	N/A
DEQ	Cheryl Nolan	1:30 PM	6/18/2012	N/A
State Police/DEQ	Mick	4:52 PM	6/18/2012	12-03755
LEPC	Kasie	4:54 PM	6/18/2012	N/A
DEQ	Cheryl Nolan	8:00 AM	6/19/2012	N/A
EPA	Wes McQuiddy	1:00 PM	6/19/2012	N/A
DEQ	Cheryl Nolan	3:00PM	6/19/2012	N/A
State Police/DEQ	Mick	5:40 PM	6/19/2012	12-03755
LEPC	Kasie	5:42 PM	6/19/2012	N/A

Louisiana Department of Environmental Quality
Unauthorized Discharge Notification Report (LAC I:3925)

DEQ	Cheryl Nolan	11:00 AM	6/20/2012	N/A

Detailed event timeline can be found in Attachment 4.

ATTACHMENT 1

Summary of Sample Locations

June 14, 2012 - Benzene Event Water Samples

The following locations are where wastewater samples were collected during the event:

1) The WCLA CPS Sewer System - this is the system that services the process operating units
2) The 13/14 Separator - this is the system that services the tankfield area that includes the Tank 801 pump
3) Tank 22 - one of the WCLA water storage tanks equipped with an internal floating roof
4) Tank 21 - one of the WCLA water storage tanks equipped with an internal floating roof
5) A 101 - a location within the WCLA unit which represents the combined total feed through the WCLA process
6) DB-201 - a location within the WCLA unit which represents material to the biox aeration basins
7) Tank 26 - an internal floating roof tank that is one of the feed tanks to the Benzene NESHAP treatment process
8) Tank 778 - a tank with an external floating roof that material was pumped to during the event
9) Rain Basin 1, an surface impoundment used to collect and store first flush rainwater prior to treatment in WCLA

ATTACHMENT 2

Summary of Air Monitoring Sample Locations & Results

ExxonMobil

U.S. Medicine and Occupational Health
Industrial Hygiene Section

July 10, 2012

To: BR Complex Wide Distribution
From: Industrial Hygiene Section

File No. 15.160

Subject: BRRF/BRCP Tank 801 Incident Direct Read Monitoring Results - 6/14 – 6/29, 2012

INTRODUCTION

At the request of the Chemical Plant Superintendent, Industrial Hygiene responded on Thursday, June 14 to a naphtha leak associated with Tank 801.

IH deployed to areas in the Complex that followed the refinery's wastewater treatment system, which included the Coker, West Complex, 13/14 Separator, Wastewater Treatment (WCLA), East Area Tank field, and Bluff Tankage Area. Additionally, adjacent offsite areas and sections of the property fence line were monitored.

Air monitoring was performed using handheld equipment for the detection of VOC's and benzene to help determine the need for protective equipment. Since the start of the incident, IH has gathered over 1700 data points to ensure a thorough characterization of the environment during the response and subsequent follow up activities.

Industrial Hygiene personnel will continue to conduct air monitoring in the area near the waste water treatment facility, where the naphtha is being treated, at Separator 13/14, and at the fence line, verifying safe conditions for areas where personnel are working. This will continue until processing of the naphtha material in the recovery and wastewater treatment facilities is discontinued.

RESULTS

A summary of the results compiled from the air monitoring conducted is included below. The complete data set is available for review upon request from IH. Please contact IH Department at 7-4950.

RECOMMENDATION AND FOLLOW-UP

- **Please post this report and results by 7/10/12 for all employees to review.**
- Continue to follow all applicable Safety Standards to ensure a safe work environment around the three remaining barricaded areas: WCLA – Tank 102, WCLA – Pump Station #1, and Separator 13/14.
- Reinforce the proper use of personal protective equipment to prevent any potential exposure to hydrocarbon vapors/gasses. This includes the use of respiratory protection equipment in barricaded areas. Respiratory protection requirements are listed in Safety Standard 204.
- Follow the requirements for barricading areas where benzene levels may be above the ExxonMobil Occupational Exposure Limit. Safety Standard 554 - Benzene and Safety Standard 438 – Barricades, gives guidance.
- Maintain regulated areas until monitoring data indicate levels consistent with concentrations prior to the incident.

Contact Industrial Hygiene at 7-4950, should you have any questions or comments regarding this report.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Separator 13/14 and East Area Tank Field

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	36	< 0.10	75*	55 % (20/36)
Total Hydrocarbons	20	< 1.00	400	35 % (7/20)

* Peak value is a one minute sample collected inside the barricaded area.

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	44	< 0.05	24.20	52% (23/44)
Total Hydrocarbons	10	< 1.00	271.00	20% (2/10)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	149	0.05	2.45	80% (119/149)

Date: 6/17/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	99	< 0.05	2.01	81% (80/99)

Date: 6/18/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	35	< 0.20	1.30	97% (34/35)
Total Hydrocarbons	12	3.20	23.10	0.0% (0/12)

Date: 6/19/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	14	< 0.20	< 0.20	100% (14/14)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Separator 13/14 and East Area Tank Field

Date: 6/20/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	26	< 0.20	< 0.20	100% (26/26)

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	0.27	88% (7/8)

Date: 6/22/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)

Date: 6/23/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)

Date: 6/24/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.10	< 0.20	100% (8/8)

Date: 6/25/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	16	< 0.10	< 0.20	100% (16/16)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

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TANK 801 INCIDENT AIR MONITORING INFORMATION:

Separator 13/14 and East Area Tank Field

Date: 6/26/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/27/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	5	< 0.20	0.24	80% (4/5)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Coker Unit

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	46	< 0.10	19.60	72% (33/46)
Total Hydrocarbons	25	< 1.00	200	48% (12/25)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	89	< 0.05	70.00	80% (71/89)
Total Hydrocarbons	9	< 1.00	9.00	11% (1/9)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	103	< 0.05	2.55	90% (93/103)

Date: 6/17/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.05	< 0.05	100% (18/18)

Date: 6/18/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	5	< 0.20	< 0.20	100% (5/5)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- [illegible] with direct read instruments over a [illegible] sampling period.
- [illegible] requires appropriate respirator [illegible]

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Coker Unit

Date: 6/24/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)
Total Hydrocarbons	4	0.10	1.00	0% (0/4)

Date: 6/25/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	5	< 0.10	< 0.10	100% (5/5)
Total Hydrocarbons	5	< 1.00	< 1.00	100% (5/5)

Date: 6/26/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	7	< 0.10	< 0.10	100% (7/7)

Date: 6/27/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	10	< 0.10	0.20	90% (9/10)
Total Hydrocarbons	2	< 0.10	< 0.10	100% (2/2)

Date: 6/28/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	5	< 0.10	< 0.20	100% (5/5)
Total Hydrocarbons	4	< 0.10	< 0.10	100% (4/4)

Date: 6/29/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)
Total Hydrocarbons	4	< 0.10	< 0.10	100% (4/4)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Bluff Tankage Area/Docks

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	21	< 0.10	10	90% (19/21)
Total Hydrocarbons	7	< 1.00	< 1.00	100% (7/7)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	1	0.10	0.10	0% (0/1)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	3	< 0.10	< 0.10	100% (3/3)

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	6	< 0.10	< 0.20	100% (6/6)
Total Hydrocarbons	5	< 1.00	< 1.00	100% (5/5)

Date: 6/22/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.10	< 0.10	100% (4/4)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION

West Complex

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	27	< 0.10	0.50	93% (25/27)
Total Hydrocarbons	9	< 1.00	18.40	89 % (8/9)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	14	< 0.05	< 0.20	100% (14/14)

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Total Hydrocarbons	4	< 1.00	< 1.00	100% (4/4)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

OXO Unit

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	5	< 1.00	2.70	60 % (3/5)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Off-site/Fenceline – along Scenic Hwy and Southgate

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	10	< 0.10	< 0.20	100 % (10/10)
Total Hydrocarbons	4	< 1.00	< 1.00	100 % (4/4)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	9	< 0.10	< 0.50	100% (9/9)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	13	< 0.10	0.20	85 % (11/13)

Date: 6/17/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	10	< 0.05	< 0.20	100% (10/10)

Date: 6/18/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	12	< 0.05	< 0.20	100% (12/12)

Date: 6/19/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	9	< 0.05	< 0.05	100% (9/9)

Date: 6/20/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Off-site/Fenceline – along Scenic Hwy and Southgate

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	16	< 0.20	< 0.20	100% (16/16)

Date: 6/22/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/23/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/24/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/25/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/26/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Off-site/Fenceline – along Scenic Hwy and Southgate

Date: 6/27/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/28/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/29/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	9	< 0.20	< 0.20	100% (9/9)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Entergy Area/Mutual Aid Fenceline

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	54	< 0.10	1.30	89 % (48/54)
Total Hydrocarbons	4	< 1.00	< 1.00	100 % (4/4)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	35	0.10	2.90	57% (20/35)
Total Hydrocarbons	14	< 1.00	13.50	86% (12/14)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	29	< 0.10	0.20	86% (25/29)

Date: 6/17/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	13	< 0.05	0.20	15% (2/13)

Date: 6/18/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.05	< 0.05	100% (4/4)

Date: 6/19/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.05	< 0.05	100% (4/4)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Entergy Area/Mutual Aid Fenceline

Date: 6/20/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	7	< 0.20	< 0.20	100% (7/7)

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)

Date: 6/22/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/23/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/24/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/25/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/26/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Entergy Area/Mutual Aid Fenceline

Date: 6/27/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/28/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/29/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

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TANK 801 INCIDENT AIR MONITORING INFORMATION:

WCLA

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	23	< 0.10	1.80	87% (20/23)
Total Hydrocarbons	3	< 1.00	12.10	67% (2/3)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	19	< 0.10	16.85	47% (9/19)
Total Hydrocarbons	10	< 1.00	26.00	10% (1/10)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	62	< 0.10	15.40	53% (33/62)

Date: 6/17/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	34	< 0.05	20.30	50% (17/34)

Date: 6/18/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	94	< 0.05	18.60	66% (62/94)

Date: 6/19/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	43	< 0.10	5.20	58% (25/43)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

WCLA

Date: 6/20/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	49	< 0.10	3.20	80% (39/49)

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	58	< 0.10	3.10	83% (48/58)
Total Hydrocarbons	2	< 1.00	< 1.00	100% (2/2)

Date: 6/22/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	30	< 0.10	1.50	83% (25/30)

Date: 6/23/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	12	< 0.10	< 0.10	100% (12/12)

Date: 6/24/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	23	< 0.10	0.30	78% (18/23)

Date: 6/25/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	14	< 0.10	0.70	93% (13/14)

Date: 6/26/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	30	< 0.10	0.20	97% (29/30)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

WCLA

Date: 6/27/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	28	< 0.10	2.00	89% (25/28)

Date: 6/28/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	16	< 0.10	6.70	63% (10/16)

Date: 6/29/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	14	< 0.10	1.50	79% (11/14)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ATTACHMENT 3

Final Material Balance

June 14, 2012 Release Emissions Calculations

Total Emissions = Initial Release + Material Captured and Controlled + Material Treated Biologcally

Initial Release

- Initial Release Total = 121,845 pounds of Naphtha determined by Tank 801 Material Balance
- Composition of material being pumped out of Tank 801, % from last sample dated 6/12/12 @ 1800 hrs

	Benzene	Toluene	Cyclohexane	Ethyl Benzene	Hexane	Isoprene	Other VOC	Total
	50.86	21.76	1.53	0.24	2.79	0.02	22.80	100.00
Initial Loss from Pump Discharge Piping, pounds	**61,970**	**26,513**	**1,864**	**292**	**3,399**	**28**	**27,777**	**121,845**

Material Captured in Controlled Storage Tanks and Controlled to the BRRF Benzene NESHAP Treatment Processes, BRU

- Volume of Tank Contents, and Constituent Concentrations from Release, in ppm

				Notes	ppm						
Tank 22 Water											
	bbls		130,000	1) Jan-Jun 2012 baseline concentrations in the captured water to WCLA prior to incident in Tanks 22, 26, 778 water are benzene @ 235 ppb, and toluene at 844 ppb							
	pounds		45,318,000	2) Conservatively assumes 0% of the cyclohexane, ethyl benzene, hexane and isoprene in the captured water was from the spill	251	72	0	0	0	0	113
Tank 22 Oil				3) Assume Other VOC in water is relative to benzene							
	bbls	6.5 feet of oil @ 4190 bbls/ft plus 350 bbls pumped to BRRF for recovery @ 7.1 lb/gal	2,445	4) Assume toluene, cyclohexane, ethyl benzene, hexane, isoprene and Other VOC in the recovered oil is relative to benzene from the release. Lab data/material balance demonstrates that existing oil in Tanks 22 and 26 already contained these compounds.							
	pounds		729,099	5) Conservatively assumes 0% of the captured oil in Tank 778 is from the release. Tank 778 had a hydrocarbon heel level in it before the captured water was added.	2290	980	69	11	126	1	1026
Tank 26 Water											
	bbls		56,351								
	pounds		19,643,959		126	97	0	0	0	0	56
Tank 26 Oil											
	bbls	4.9 feet oil @ 2000 bbls/ft @7.1 lb/gal	9,700								
	pounds		2,892,540		3799	1625	114	18	208	2	1703
Tank 778 Water											
	bbls		12,364								
	pounds		4,310,090		83	117	0	0	0	0	37
Tank 778 Oil											
	bbls		None								
	pounds		None		0	0	0	0	0	0	0

- Tank Captured Contents Summary, pounds

	Benzene	Toluene	Cyclohexane	Ethyl Benzene	Hexane	Isoprene	Other VOC	Total
Tank 22 Water	11,382	3,261	-	-	-	-	5,102	19,745
Tank 22 Oil	1,669	714	50	8	92	1	748	3,282
Tank 26 Water	2,471	1,897	-	-	-	-	1,107	5,475
Tank 26 Oil	10,989	4,701	331	52	603	5	4,925	21,606
Tank 778 Water	358	505	-	-	-	-	161	1,024
Tank 778 Oil	-							-
Total Material Captured, pounds	859	11,078	381	60	694	6	12,044	51,132

June 14, 2012 Release Emissions Calculations (con't)

Material Biologically Treated at WCLA, Not Released into the Environment)

Notes

1) This is the material from Tank 21 and Rain Basin 1 that was processed through the BRRF WWTP

2) Total biological treatment excludes the baseline concentrations of these speciated compounds based on the first half of 2012 actual concentrations to WCLA

3) Conservatively assumed no biological treatment from isoprene due to lack of data

4) July 10, 2012 data indicated that the BRRF WWTP was back to normal operation levels

Date	Speciated Pounds Treated Biologically Per TOXCHEM Modeling of WCLA Inlet							
	Benzene	Toluene	Cyclohexane	Ethyl Benzene	Hexane	Isoprene	Other VOC	Total
14-Jun	218	44	1	8	1	0	68	340
15-Jun	43	24	1	4	0	0	18	90
16-Jun	2,024	939	25	83	82	0	788	3,941
17-Jun	328	189	6	16	16	0	139	694
18-Jun	397	261	2	11	8	0	170	849
19-Jun	267	195	2	4	4	0	118	590
20-Jun	59	310	7	25	22	0	106	529
21-Jun	98	44	1	0	0	0	36	179
22-Jun	118	52	1	3	3	0	44	221
23-Jun	145	12	1	3	3	0	41	205
24-Jun	126	63	0	3	1	0	48	241
25-Jun	79	52	1	3	3	0	34	172
26-Jun	14	10	0	4	0	0	7	35
27-Jun	9	9	0	7	0	0	7	32
28-Jun	8	12	0	2	0	0	6	28
29-Jun	4	2	0	0	0	0	1	7
30-Jun	8	7	0	4	0	0	5	24
1-Jul	10	8	0	5	0	0	6	29
2-Jul	5	5	1	3	1	0	4	19
3-Jul	20	20	0	5	0	0	11	56
4-Jul	4	2	0	2	0	0	2	10
5-Jul	10	10	2	2	3	0	7	34
6-Jul	4	4	0	1	0	0	2	11
7-Jul	50	38	0	3	0	0	23	114
8-Jul	20	27	1	3	0	0	13	64
9-Jul	11	15	0	2	0	0	7	35
Total Material Biologically Treated at WCLA, Therefore Not Released into the Environment	**4,079**	**2,354**	**52**	**206**	**147**	**0**	**1,711**	**8,549**

	Benzene	Toluene	Cyclohexane	Ethyl Benzene	Hexane	Isoprene	Other VOC	Total
Total Emissions to the Environment = Total Release, Minus Captured, Minus Biologically Treated =	**31,022**	**13,081**	**1,431**	**27**	**2,558**	**22**	**14,022**	**62,164**

ATTACHMENT 4

Detailed Event Timeline

DATE	TIME	DESCRIPTION / ACTIVITY
8/2011	-	Tank 801 out of service for repairs. Safety Valve and associated piping were not part of the repair
10/26/2011	-	P-53A discharge SRV prepared for mechanical work
10/27/2011	-	Safety Release Valve pulled for preventative maintenance and returned to service utilizing bleeder in question as "zero energy" valve on upstream of safety
11/8/2011	-	Maintenance repair order submitted due to pump motor drawing too many amps (85 amps vs 60-65 amps) – Loss of pressure on primary pump results in auto-start of P-53A requiring manual adjustment to maintain system discharge pressure at or below 260 psig.
1/24/2011	-	Fugitive emissions testing conducted on bleeder valve, found to be above threshold (1773 ppm vs 500ppm)
1/26/2011	-	Bleeder tightened per LDAR records
1/27/2011	-	Bleeder retested by LDAR monitoring technicians with 36 ppm reading
3/27/2011	-	Follow up testing by LDAR monitoring technicians with 15 ppm reading
6/14/2012	Day Shift	Assistant Operator (A.O.) No. 1 performed routine rounds in East Tank Field area. No indications of leak while using water pump immediately adjacent to leak location. Remained at job site while pumping water. Did not observe any unusual line vibration or anomalies.
6/14/2012	~12:00 a.m.	A.O. No. 2 made round in area, got out of vehicle and saw no issues
6/14/2012	1:54 a.m.	Leak began through open bleeder confirmed by Process Technical

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	~4:15 a.m.	Two BRRF A.O.'s called in a sweet odor to OSD FLS in East Tank Field area
6/14/2012	after 4:15 a.m.	OSD First Line Supervisor (FLS) No. 1 and No. 2 responded to leak area and talked to the BRRF A.O.'s. Noise caught OSD FLS No. 1 attention who noticed large volume of product flowing out of a bleeder.
6/14/2012	~4:30 a.m.	BRRF OSD FLS No. 2 notified CPS of leaking bleeder near T-784 and remained upwind. OSD FLS's remained on scene to determine ownership of tank, assist in blocking traffic.
6/14/2012	after 4:30 a.m.	BRCP Y Shift Superintendent notified OXO Low Pressure OC of significant leak near T-784 and responded to leak from the north side. At this time the wind was from north and no smells were observed. BRCP Superintendent parked on 20th Street and walked up Avenue A to Avenue. C looking for leak.
6/14/2012	~4:35 a.m.	OXO Operations Controller notified OXO Shift Team Lead (STL) and A.O. No. 2 of significant leak in vicinity of T-784.
6/14/2012	4:38 a.m.	Refinery Superintendent advised by OEC of leak around Ave. C and 20th
6/14/2012	~4:40 a.m.	OXO STL and A.O. No. 2 responded to area of leak. Two BRRF OSD employees in the tank field informed the STL and A.O. No. 2 of the large leak and noted possibility of benzene.
6/14/2012	~4:45 a.m.	BRCP Superintendent met OXO STL and A.O. No. 2 in the area and did not smell any odors.

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	After 4:45 a.m. ~ 5:30 a.m.	BRCP Superintendent called OSD FLS No. 2 to find his location and about the same time identified the source of the leak in the area of Tk-801 pump pit. Bleeder valve appeared to be open. • BRCP Superintendent requested water to be placed on the leak to knock down the vapors • Air monitoring officer did not have a chip for draegor and had to go to CPL to get chips. Once monitoring began, got no benzene detection along Ave. E. • The two BRRF OSD employees secured the area to eliminate any through traffic. BRRF Super arrived on scene to assist in road closures. • OXO STL noted that the closest fire monitor and SCBA were located in the "hot zone" and requested A.O. No. 2 to return to OXO CC to procure a SCBA for response to open the fire monitor and to isolate the leak. • AO no. 2 returned and opened the fire monitor in SCBA and then proceeded to shut off P-53. Leak reduced by 50%. • CSA valve to SRV blocked by A.O. No. 2 by going around behind fire wall of pumps. Could not get to the open bleeder without the additional protective clothing (PPE) (did not have Chem-Suit available) • Supers discussed notification of IH. BRCP Super took action item to notify IH. They were notified around 5:00 a.m. • BRCP Super worked with OXO OC and BRRF to tell them that material was heading via sewer system to 13/14 separators • BRRF Superintendent (Day Super) went immediately to 13/14 separator after opening Ave. E to traffic, there continued response with OSD FLS and air monitor officer • BRCP Super remained at Tk 801 until monitoring was complete. Found only the pump pit to be the hot spot.

DATE	TIME	DESCRIPTION / ACTIVITY
		Requested the monitor be left on.

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	~5:03 a.m.	Leak secured by Process blocking inlet gate valve to SRV.
6/14/2012	after 5:03 a.m.	Emergency Response gas tester came to scene, tested air quality, and noted detection for benzene in P-53 sewer basin only.
6/14/2012	after 5:03 a.m.	OXO STL attempted to close the open bleeder and could not easily close by hand. Used pipe wrench to close taking several turns to close. Bleeder appeared to be open >50%.
6/14/2012	5:04 a.m.	Release notifications initiated to Louisiana State Police / LDEQ / LEPC / NRC – Benzene > RQ
6/14/2012	5:04 a.m.	Notified State Police / LDEQ – Christy Golden; incident #12-03755
6/14/2012	5:10 a.m.	Notified LEPC - Shane
6/14/2012	5:12 a.m.	Notified NRC – Petty Officer Huggins; incident #101-4519
6/14/2012	5:15 a.m.	WCLA operator detects odor at 13/14 during hourly round. Tk-22 is still pumping to WCLA feed
6/14/2012	5:15 a.m.	Started flushing sewer
6/14/2012	5:26 a.m.	All clear by OEC for leak site, reopened Ave. E gate
6/14/2012	5:30 a.m.	IH monitoring for benzene begins

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	after 5:30 a.m.	OXO Process Coordinator went to scene to assist OXO STL and survey area for missing bleeder plugs. None were found missing. With P-53 down, worked with AP2 area to obtain discharge pressure for calculating leak rate.
6/14/2012	before 6:00 a.m.	BRRF and BRCP Superintendents agreed to continue flushing sewer system with fire water
6/14/2012	~6:00 a.m.	A.O. assisted in starting P-53A. Pressure swings and bad vibrations were observed. Valve handles were vibrating. Found SRV on the pump relieving back to tank, swapped to B pump and all indications were that the SRV had reset
6/14/2012	6:05 a.m.	Isolated 13/14 sewer system to Tk-22, started pumping all other influent streams to Tk-21 and pumping Tk-21 to WCLA feed line
6/14/2012	6:45 a.m.	Benzene concentration > 10 ppm at 13/14 Separator
6/14/2012	~6:00 a.m. till 8:00 a.m.	A.O. No. 1 executed post leak isolation activities.
6/14/2012	7:03 a.m.	Refinery Superintendent advised to block off Ave. W from 13th St thru 20th St based on gas test readings
6/14/2012	7:30 a.m.	CNIC Railroad closed
6/14/2012	~8:00 a.m.	A.O. No. 3 relieved A.O. No. 1
6/14/2012	8:00 a.m.	Update notification to LDEQ – Rachel Mroch

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	8:10 a.m.	Placed "All Call" advising on staging upwind or crosswind north of 13th St and Ave. Q west of CNIC Railroad and 13th Street per Refinery Superintendent based on gas test readings
6/14/2012	~8:15 a.m.	IH deemed area clear prior to A.O. No. 3 entry into pump area
6/14/2012	8:18 a.m.	Second all call advising on staging upwind or crosswind north of 13th Street and Ave. Q west of CNIC Railroad and 13th street per Refinery Superintendent based on gas test readings
6/14/2012	8:21 a.m.	Third all call notification with street/avenue update
6/14/2012	~8:30 a.m.	A.O. No. 3 placed P-53A back in service. SRV lifted. He opened recirculating line to lower pressure and reseat SRV. SRV set at 285 psig. Pump typically operates at 250 psig. Excessive vibration on pump and piping observed. Valve handles were vibrating. Swapped to B pump. Put A pump in "auto-start" mode. The AO noted that all bleeders were plugged at this time.
6/14/2012	8:39 a.m.	BRCP Level II Emergency Response Initiated
6/14/2012	~8:42 a.m.	Level 2 incident classification
6/14/2012	~9:00 a.m.	Investigation Team formed
6/14/2012	~9:00 a.m.	LDEQ initiated community monitoring (Rachel Mroch) – no community impact noted

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	after 9:00 a.m.	BRRF requested suspension of water flush
6/14/2012		Refinery continued response to positive benzene gas test reading
6/14/2012	9:15 a.m.	Incident investigation initiated
6/14/2012	9:35 a.m.	Update notification to State Police / LDEQ – Christy Golden; incident #12-03755
6/14/2012	9:35 a.m.	Update notification to State Police – Steve Long
6/14/2012	9:35 a.m.	Notified LSP of Toluene > RQ
6/14/2012	12:30 p.m.	Personnel testing for benzene exposure initiated
6/14/2012	12:30 p.m.	Received calculation for tank 801 release of 411 barrels from engineering
6/14/2012	~1:00 p.m.	Foam operations initiated mitigate evaporation potential
6/14/2012	1:51 p.m.	Per Refinery Superintendent, the area west of the CNIC Railroad including 13th street tunnel is clear for normal activities. 13th Street through 20th Street and Avenue Q and Avenue W will remain restricted
6/14/2012	3:37 p.m.	Sewer Alert issued

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	5:35 p.m.	Rain Event: 0.46 inches (< 1 hour). Level in Tk-22 rose quickly to near high level and all storm water sewers (including 13/14) were diverted to RB-1
6/14/2012	6:34 p.m.	All Call placed restricting access west of CNIC Railroad 13th Street Tunnel, 13th & 20th Street between Avenue W through Avenue Q
6/14/2012	8:15 p.m.	Refinery Superintendent was notified that CNIC Railroad Train Master reported a sweet smelling odor causing headaches to Railroad employees. Advised to remove all CNIC employees from the area.
6/14/2012	8:50 p.m.	After rain event, 13/14 sewers were slowly pumped to Tk-22 until high level (30 ft), then the tank was blocked in.
6/14/2012	10:06 p.m.	Refinery Superintendent issued an I-Notification for Level 1 – Unusual Event
6/14/2012	10:12 p.m.	Once Tk-22 was full, 13/14 water was lined up to Tk-26. Tk-26 continued normal operation of pumping water bottoms to the Bz stripper
6/15/2012	1:30 a.m.	Refinery Superintendent allowed CNIC Railroad to travel down the main railroad line through the facility
6/15/2012	3:51 a.m.	Refinery Superintendent issued all call to resume normal work activity in the Refinery between Avenue W & Q and 13th & 17th street. However, the area between 17th & 20th Street and between Avenue W & Q remained restricted until further notice.
6/15/2012		Fence line monitoring results continue to demonstrate no community impact with all monitoring locations at below detection.
6/15/2012		Recovery and treatment operations continue as well as fence line and unit air monitoring.

DATE	TIME	DESCRIPTION / ACTIVITY
6/15/2012	2:30 p.m.	Once Tk-26 was full, 13/14 water was pumped to Tk-778, while flushing 13/14 sewer lines with fire water
6/15/2012	3:30 p.m.	Update Notification to LDEQ – Rachel Mroch
6/15/2012	3:30 p.m.	Incident Updates initiated with LSP / LDEQ [Rachel Mroch (LDEQ), Gene Dunegan (LSP), Steve Long (RTK)]
6/15/2012	3:42 p.m.	Update Notification to State Police – Gene Edmundson
6/15/2012	4:00 p.m.	Update Notification to State Police – Steve Long
6/15/2012	4:15 p.m.	DPS Hazmat Hotline updated with same information given to response personnel
6/15/2012	4:15 p.m.	Update Notification to State Police / LDEQ – Mick; incident #12-03755
6/15/2012	4:24 p.m.	All call placed for the closing of 13th Street tunnel per Refinery Superintendent
6/15/2012	5:44 p.m.	Mutual aid gate opened for Industrial Hygiene to monitor air quality
6/16/2012		Fence line monitoring results continue to demonstrate no community impact with all monitoring locations at below detection.
6/16/2012	1:05 a.m.	13/14 water sample results, from 6/15 @ 14:30, indicated 25.7 ppm Bz (low enough to enter Tk-21 and be below 10 ppm @ WCLA feed). All flows were sent to Tk-21, then WCLA feed.

DATE	TIME	DESCRIPTION / ACTIVITY
6/16/2012	4:15 p.m.	Update Notification to LDEQ – Cheryl Nolan
6/16/2012	4:45 p.m.	LDEQ notifies site of complaint investigation (Cheryl Nolan / Derek Reese)
6/16/2012	5:03 p.m.	LDEQ onsite for incident review and conduct SUMMA canister monitoring and VOC monitoring. Communicate to LDEQ that emissions estimate may be 2-3X initial estimates – awaiting sample results to improve material balance.
6/16/2012	7:30 p.m.	Liaison with EPA Region VI Response Desk with incident update (Roberto Bernier)
6/16/2012	7:55 a.m.	Opened gate 34 for CNIC Industrial Hygiene personnel
6/16/2012	8:30 a.m.	CNIC Industrial Hygiene personnel exit the complex
6/16/2012	9:23 p.m.	Rain Basin-1 began pumping into the unit feed line, along with Tk-21
6/16/2012	10:25 p.m.	Sample results, from 6/16 @ 11:30, indicated 52.8 ppm Benzene @ WCLA feed and 107 ppm Benzene in Tk-21. Stopped feeding RB-1 and Tk-21 to WCLA feed. Only normal WCLA influent streams (zero Benzene from spill) fed directly to unit.
6/17/2012		Fence line monitoring results continue to demonstrate no community impact with all monitoring locations at below detection.
6/17/2012		Recovery and treatment operations continue as well as fence line and unit air monitoring.
6/17/2012	8:29 a.m.	Pumped residual rain water into Tk-21 to help dilute.

DATE	TIME	DESCRIPTION / ACTIVITY
6/17/2012	9:48 a.m.	Incident update to LSP / LDEQ
6/17/2012	10:15 a.m.	Update Notification to State Police / DEQ – Trameka; incident #12-03755
6/17/2012	10:16 a.m.	DPS Hazmat Hotline updated with same information given to response personnel.
6/17/2012	6:55 p.m.	Tk-21 sample results, from 6/17 @ 10:00, indicated 14.3 ppm Bz. All flows sent back to Tk-21 and to unit feed
6/17/2012	7:18 p.m.	Liaison with EPA Region VI Response Desk with incident update (Roberto Bernier)
6/18/2012		Fence line monitoring results continue to demonstrate no community impact with all monitoring locations at below detection.
6/18/2012		Recovery and treatment operations continue as well as fence line and unit air monitoring.
6/18/2012	11:30 a.m.	EPA notes intent to conduct Site Visit – Wes McQuiddy
6/18/2012	12:23 p.m.	Rain Event: 0.18 inches. Uncontaminated rain water pumped to Rain Basin - 1
6/18/2012	1:30 p.m.	Incident Review with LDEQ
6/18/2012	2:15 p.m.	OSHA conducting on-site review of incident response efforts
6/18/2012	4:52 p.m.	Update notification to State Police / LDEQ – Mick; incident #12-03755

DATE	TIME	DESCRIPTION / ACTIVITY
6/18/2012	4:54 p.m.	Update Notification to LEPC - Kasie
6/18/2012	10:00 p.m.	WCLA feed water sample results, from 6/18 @ 14:00, indicated 24.2 ppm Benzene. Stopped feeding Tk-21 to WCLA unit feed. Only normal WCLA influent streams (zero Benzene from spill) fed directly to unit.
6/19/2012		Fence line monitoring results continue to demonstrate no community impact with all monitoring locations at below detection.
6/19/2012		Recovery and treatment operations continue as well as fence line and unit air monitoring.
6/19/2012	7:00 a.m.	All captured spill material is being processed through the refinery's Benzene Stripped Towers
6/19/2012	8:00 a.m.	Incident Overview with LDEQ (Cheryl Nolan / Celena Cage / Derek Reese)
6/19/2012	12:54 p.m.	All flows sent back to Tk-21 and to unit feed.
6/19/2012	1:00 p.m.	Incident Review/Site Visit with EPA – Wes McQuiddy/Derek Reese/Stan Labat
6/19/2012	3:00 p.m.	Update Notification to LDEQ – Cheryl Nolan/Derek Reese
6/19/2012	5:40 p.m.	Update Notification to State Police / LDEQ – Mick; incident #12-03755
6/19/2012	5:42 p.m.	Update Notification to LEPC – Kasie

DATE	TIME	DESCRIPTION / ACTIVITY
6/20/2012	7:00 a.m.	RB-1 began pumping into the unit feed line, along with Tk-21
6/20/2012	11:00 a.m.	Update Notification to LDEQ – Cheryl Nolan/Derek Reese

ExxonMobil Chemical Company
Baton Rouge Chemical Plant
4999 Scenic Highway
Baton Rouge, Louisiana 70805-3359
P.O. Box 241
Baton Rouge, Louisiana 70821-0241

PM 08/14

RECEIVED
AUG 23 2012
DEQ
Single Point of Contact

ExxonMobil Chemical

August 14, 2012

Louisiana Department of Environmental Quality
P.O. Box 4312
Baton Rouge, LA 70821-4312
ATTENTION: Assessment Division, Emergency Response Section - SPOC
"UNAUTHORIZED DISCHARGE NOTIFICATION REPORT"

Re: Letter of Notification
Unauthorized Discharge Report
State Police Incident #12-03755
NRC #101-4519
Agency Interest Number: 286 & 2638

Dear Sir or Madam:

This letter serves as *the 60-day follow-up* to the written notification of the events and circumstances surrounding the release that occurred at the ExxonMobil Baton Rouge Chemical Plant (BRCP) on June 14, 2012. *All updates to the report are italicized.* Initial verbal notifications were made by R. Whitehead to the Louisiana State Police (Christy) at 5:04 AM, LDEQ via SPOC, East Baton Rouge LEPC (Shane) at 5:10 AM, and the National Response Center (P.O. Huggins) at 5:12 AM. As detailed in the attached Discharge Notification Report, the reportable quantities for benzene, toluene, cyclohexane, n-hexane, and volatile organic compounds (VOCs) were exceeded as a result of this event.

If you have any questions regarding this notification, please contact me at 977-0609.

Sincerely,

J Derek Reese
Senior Section Supervisor
Permits & Compliance Coordination Section

JLM
CP Airfile 1.1.01.12.017u
Certified Mail No.: 7011 0110 0001 3305 7040

cc: Local Emergency Planning Committee
State Police, HAZMAT Unit
Department of Health and Hospitals
Bobby Mayweather, LDEQ
MSU Facilities Dept., USCG
Cheryl Nolan, LDEQ
Peter Ricca, LDEQ
Wes McQuiddy, USEPA

Certified Mail No.: 7011 0110 0001 3305 7057
Certified Mail No.: 7011 0110 0001 3305 7064

Louisiana Department of Environmental Quality
Unauthorized Discharge Notification Report (LAC I:3925)

I.	**Company Name:**	ExxonMobil Chemical Company
	Physical Address:	4999 Scenic Highway Baton Rouge, LA 70805
	Mailing Address:	P.O. Box 241 Baton Rouge, LA 70821
	Contact Name:	J. D. Reese
	Telephone Number:	(225) 977-0609
II.	**Date and Time of Verbal Notification:**	June 14, 2012 at 5:04 AM
	Official Contacted:	Christy Golden
	Officials Making Notifications:	R. T. Whitehead
	Site Identification:	Baton Rouge Chemical Plant
III.	**Date and Time Incident Started:**	June 14, 2012 at 1:54 AM
	Date and Time Incident Ended:	June 14, 2012 at 5:06 AM
	Date and Time Incident Discovered:	June 14, 2012 at 4:35 AM
	Duration:	3 hours 10 minutes

IV. **Upset Description, Cause, and Offsite Impact (If Applicable):**

On June 14, 2012, at approximately 4:35 AM, a failed bleeder plug was found at Tank 801 in BRCP's Aromatics Tankfield. Approximately 411 barrels of steam cracked naphtha reached the sewer system via this bleeder. All of the material was contained within the refinery's wastewater treatment facility. This collection facility successfully prevented any loss of of containment of liquid steam cracked naphtha offsite. The material was being pumped and moved to onsite storage to facilitate recovery and treatment of the material. All recovered liquid material was placed in tanks 778, 21, 22, and 26, all of which are properly configured and permitted to store this material. *After a detailed incident investigation was completed it was determined that the root cause of the event was due to the associated valve being partially open. The bleeder plug vibrated loose over time causing the material to enter the sewer system.*

On June 14, 2012, the site began the process of understanding the constituents of the steam cracked naphtha that may have been released to the air by performing material balance calculations. During the first 24-48 hours of the incident response, the initial assumptions were that a majority of the material was being contained with miminal evaporative losses. Emissions reporting was based on the initial vaporization of material from the leak duration. Samples of the stored and liquid material were collected from multiple areas and storage facilities to help develop a more definitive material balance of the total steam cracked steam cracked naphtha released. Attachment 1 provides a summary of the sample locations utilized.

As a precaution, at 12:30 PM on June 14, 2012, approximately 400 employees and contractors in the impacted areas of the Complex were tested for potential exposure. Test results were satisfactory and demonstrates no affect on these individuals.

The site conducted regular monitoring at the fence line every four hours and in three unit areas on an hourly basis during incident response activities. All fence line readings remain below detection. ExxonMobil Industrial Hygiene personnel conducted air monitoring and verified safe conditions for

areas where personnel were working. Attachment 2 provides a summary report of all air monitoring sample locations and results.

As of June 19, 2012, at 5:00 PM, preliminary calculations provided a cumulative emission estimate of 19,212 pounds of benzene, 8,557 pounds of toluene, 827 pounds of cyclohexane, 88 pounds of ethylbenzene, 1,047 pounds of hexane, and 8,440 pounds of other VOCs. Potentially an additional 9,476 pounds of benzene and 2,325 pounds of toluene may be emitted during the wastewater treatment operations as part of the recovery and treatment of the steam cracked naphtha that reached the sewer. *Emissions from the processing of the steam cracked naphtha material did not exceed any ambient air quality standards.* The Complex monitored the emissions from processing of the material to ensure safety of personnel and community.

As of July 19, 2012 final calculations provided a cumulative emission estimate of 31,022 pounds of benzene, 13,081 pounds of toluene, 1,431 pounds of cyclohexane, 27 pounds of ethylbenzene, 2,588 pounds of hexane, 22 pounds of isoprene, and 14,022 pounds of other VOCs. The final material balance can be found in Attachment 3

Emissions from the wastewater storage and collection areas *were* regularly monitored to ensure safe operations for personnel. Further, fenceline monitoring *was conducted* until the steam cracked naphtha material in Tank 21 and RB-1 *was* treated treated through the Refinery Wastewater Treatment facilities.

Weather conditions at the time of the incident on June 14, 2012 were as follows: 77 DegF with a 3 mph wind from the Northeast and no precipitation.

V. **Specific Pollutants Emitted and Amount Released (projected emissions):**

Compound	CAS Number	Quantity (lbs)	State Police RQ	DEQ RQ	Extremely Hazardous
Benzene	71-43-2	*31,022*	10 lbs	10 lbs	No
Toluene	108-88-3	*13,081*	1000 lbs	1000 lbs	No
Cyclohexane	110-82-7	*1,431*	1000 lbs	1000 lbs	No
Hexane	110-54-3	2,588	5000 lbs	1000 lbs	No
Ethylbenzene	*100-41-4*	*27*	*1000 lbs*	*1000 lbs*	*No*
Isoprene	*78-79-5*	*22*	*100 lbs*	*NA*	*No*
VOC	NA	*14,022*	NA	5000 lbs	No

VI. **Disposition:** Air

VII. **Remedial Action Taken:**

Firefighting foam was added to the sewer system every 1-2 hours to minimize the amount of evaporative losses. This foam did not impact wastewater treatment operations or capabilities in the quantities utilized during this incident.

The site conducted regular air monitoring at the fence line and unit areas for benzene. All fence line monitoring remained below detection. Air monitoring results from LDEQ SUMMA cannisters taken on June 16, 2012 confirm the *Complex's* monitoring observations as well.

Louisiana Department of Environmental Quality
Unauthorized Discharge Notification Report (LAC I:3925)

VIII. **Specific Actions Taken and/or Planned to Prevent Recurrence:**

Corrective actions to prevent recurrence will be stewarded under Consolidated Compliance Order and Notice of Potential Penalty Enforcement Tracking No. AE-CN-12-00835.

IX. **Permit Number (If Applicable):**
Air Permits: 2299-V5, , 2795-V6, Coker – 2234-V5, 2363-V3, 2341-V2
LPDES Permit: LA0005584

X. **Reporting Party Status:** Present Owner; Operator

XI. **For Discharges to the Ground or Groundwater (If Applicable):** Not Applicable

XII. **Other Responsible Parties:** N/A

XIII. **Was the Release Preventable** ***Yes*** No

If No, Explain Why the Release Was Not Preventable:

IV. **Agencies Notified**

Agency	Official Notified	Time	Date	Incident #
State Police/DEQ	Christy Golden	5:04 AM	6/14/2012	12-03755
LEPC	Shane	5:10 AM	6/14/2012	N/A
NRC	Petty Officer Huggins	5:12 AM	6/14/2012	101-4519
DEQ	Rachel Mroach	8:00 AM	6/14/2012	N/A
State Police/DEQ	Christy Golden	9:35 AM	6/14/2012	12-03755
State Police	Steve Long	9:35 AM	6/14/2012	N/A
DEQ	Rachel Mroch	3:30 PM	6/15/2012	N/A
State Police	Gene Edmundson	3:42 PM	6/15/2012	N/A
State Police	Steve Long	4:00 PM	6/15/2012	N/A
State Police/DEQ	Mick	4:15 PM	6/15/2012	12-03755
DEQ	Cheryl Nolan	4:15 PM	6/16/2012	N/A
EPA	Roberto Bernier	7:30 PM	6/16/2012	N/A
State Police/DEQ	Trameka	10:15 AM	6/17/2012	12-03755
EPA	Roberto Bernier	7:18 PM	6/17/2012	N/A
EPA	Wes McQuiddy	11:30 AM	6/18/2012	N/A
DEQ	Cheryl Nolan	1:30 PM	6/18/2012	N/A
State Police/DEQ	Mick	4:52 PM	6/18/2012	12-03755
LEPC	Kasie	4:54 PM	6/18/2012	N/A
DEQ	Cheryl Nolan	8:00 AM	6/19/2012	N/A
EPA	Wes McQuiddy	1:00 PM	6/19/2012	N/A
DEQ	Cheryl Nolan	3:00PM	6/19/2012	N/A
State Police/DEQ	Mick	5:40 PM	6/19/2012	12-03755
LEPC	Kasie	5:42 PM	6/19/2012	N/A

Louisiana Department of Environmental Quality
Unauthorized Discharge Notification Report (LAC I:3925)

DEQ	Cheryl Nolan	11:00 AM	6/20/2012	N/A

Detailed event timeline can be found in Attachment 4.

ATTACHMENT 1

Summary of Sample Locations

June 14, 2012 - Benzene Event Water Samples

The following locations are where wastewater samples were collected during the event:

1) The WCLA CPS Sewer System - this is the system that services the process operating units
2) The 13/14 Separator - this is the system that services the tankfield area that includes the Tank 801 pump
3) Tank 22 - one of the WCLA water storage tanks equipped with an internal floating roof
4) Tank 21 - one of the WCLA water storage tanks equipped with an internal floating roof
5) A 101 - a location within the WCLA unit which represents the combined total feed through the WCLA process
6) DB-201 - a location within the WCLA unit which represents material to the biox aeration basins
7) Tank 26 - an internal floating roof tank that is one of the feed tanks to the Benzene NESHAP treatment process
8) Tank 778 - a tank with an external floating roof that material was pumped to during the event
9) Rain Basin 1, an surface impoundment used to collect and store first flush rainwater prior to treatment in WCLA

ATTACHMENT 2

Summary of Air Monitoring Sample Locations & Results

ExxonMobil

U.S. Medicine and Occupational Health
Industrial Hygiene Section

July 10, 2012

To: BR Complex Wide Distribution
From: Industrial Hygiene Section

File No. 15.160

Subject: BRRF/BRCP Tank 801 Incident Direct Read Monitoring Results - 6/14 – 6/29, 2012

INTRODUCTION

At the request of the Chemical Plant Superintendent, Industrial Hygiene responded on Thursday, June 14 to a naphtha leak associated with Tank 801.

IH deployed to areas in the Complex that followed the refinery's wastewater treatment system, which included the Coker, West Complex, 13/14 Separator, Wastewater Treatment (WCLA), East Area Tank field, and Bluff Tankage Area. Additionally, adjacent offsite areas and sections of the property fence line were monitored.

Air monitoring was performed using handheld equipment for the detection of VOC's and benzene to help determine the need for protective equipment. Since the start of the incident, IH has gathered over 1700 data points to ensure a thorough characterization of the environment during the response and subsequent follow up activities.

Industrial Hygiene personnel will continue to conduct air monitoring in the area near the waste water treatment facility, where the naphtha is being treated, at Separator 13/14, and at the fence line, verifying safe conditions for areas where personnel are working. This will continue until processing of the naphtha material in the recovery and wastewater treatment facilities is discontinued.

RESULTS

A summary of the results compiled from the air monitoring conducted is included below. The complete data set is available for review upon request from IH. Please contact IH Department at 7-4950.

ExxonMobil

RECOMMENDATION AND FOLLOW-UP

- **Please post this report and results by 7/10/12 for all employees to review.**
- Continue to follow all applicable Safety Standards to ensure a safe work environment around the three remaining barricaded areas: WCLA – Tank 102, WCLA – Pump Station #1, and Separator 13/14.
- Reinforce the proper use of personal protective equipment to prevent any potential exposure to hydrocarbon vapors/gasses. This includes the use of respiratory protection equipment in barricaded areas. Respiratory protection requirements are listed in Safety Standard 204.
- Follow the requirements for barricading areas where benzene levels may be above the ExxonMobil Occupational Exposure Limit. Safety Standard 554 - Benzene and Safety Standard 438 – Barricades, gives guidance.
- Maintain regulated areas until monitoring data indicate levels consistent with concentrations prior to the incident.

Contact Industrial Hygiene at 7-4950, should you have any questions or comments regarding this report.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Separator 13/14 and East Area Tank Field

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	36	< 0.10	75*	55 % (20/36)
Total Hydrocarbons	20	< 1.00	400	35 % (7/20)

* Peak value is a one minute sample collected inside the barricaded area.

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	44	< 0.05	24.20	52% (23/44)
Total Hydrocarbons	10	< 1.00	271.00	20% (2/10)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	149	0.05	2.45	80% (119/149)

Date: 6/17/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	99	< 0.05	2.01	81% (80/99)

Date: 6/18/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	35	< 0.20	1.30	97% (34/35)
Total Hydrocarbons	12	3.20	23.10	0.0% (0/12)

Date: 6/19/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	14	< 0.20	< 0.20	100% (14/14)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Separator 13/14 and East Area Tank Field

Date: 6/20/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	26	< 0.20	< 0.20	100% (26/26)

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	0.27	88% (7/8)

Date: 6/22/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)

Date: 6/23/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)

Date: 6/24/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.10	< 0.20	100% (8/8)

Date: 6/25/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	16	< 0.10	< 0.20	100% (16/16)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Separator 13/14 and East Area Tank Field

Date: 6/26/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/27/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	5	< 0.20	0.24	80% (4/5)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Coker Unit

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	46	< 0.10	19.60	72% (33/46)
Total Hydrocarbons	25	< 1.00	200	48% (12/25)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	89	< 0.05	70.00	80% (71/89)
Total Hydrocarbons	9	< 1.00	9.00	11% (1/9)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	103	< 0.05	2.55	90% (93/103)

Date: 6/17/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.05	< 0.05	100% (18/18)

Date: 6/18/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	5	< 0.20	< 0.20	100% (5/5)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- Entering barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Coker Unit

Date: 6/24/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)
Total Hydrocarbons	4	0.10	1.00	0% (0/4)

Date: 6/25/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	5	< 0.10	< 0.10	100% (5/5)
Total Hydrocarbons	5	< 1.00	< 1.00	100% (5/5)

Date: 6/26/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	7	< 0.10	< 0.10	100% (7/7)

Date: 6/27/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	10	< 0.10	0.20	90% (9/10)
Total Hydrocarbons	2	< 0.10	< 0.10	100% (2/2)

Date: 6/28/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	5	< 0.10	< 0.20	100% (5/5)
Total Hydrocarbons	4	< 0.10	< 0.10	100% (4/4)

Date: 6/29/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)
Total Hydrocarbons	4	< 0.10	< 0.10	100% (4/4)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Bluff Tankage Area/Docks

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	21	< 0.10	10	90% (19/21)
Total Hydrocarbons	7	< 1.00	< 1.00	100% (7/7)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	1	0.10	0.10	0% (0/1)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	3	< 0.10	< 0.10	100% (3/3)

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	6	< 0.10	< 0.20	100% (6/6)
Total Hydrocarbons	5	< 1.00	< 1.00	100% (5/5)

Date: 6/22/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.10	< 0.10	100% (4/4)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION

West Complex

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	27	< 0.10	0.50	93% (25/27)
Total Hydrocarbons	9	< 1.00	18.40	89 % (8/9)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	14	< 0.05	< 0.20	100% (14/14)

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Total Hydrocarbons	4	< 1.00	< 1.00	100% (4/4)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

OXO Unit

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	5	< 1.00	2.70	60 % (3/5)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Off-site/Fenceline – along Scenic Hwy and Southgate

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	10	< 0.10	< 0.20	100 % (10/10)
Total Hydrocarbons	4	< 1.00	< 1.00	100 % (4/4)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	9	< 0.10	< 0.50	100% (9/9)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	13	< 0.10	0.20	85 % (11/13)

Date: 6/17/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	10	< 0.05	< 0.20	100% (10/10)

Date: 6/18/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	12	< 0.05	< 0.20	100% (12/12)

Date: 6/19/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	9	< 0.05	< 0.05	100% (9/9)

Date: 6/20/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Off-site/Fenceline – along Scenic Hwy and Southgate

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	16	< 0.20	< 0.20	100% (16/16)

Date: 6/22/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/23/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/24/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/25/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/26/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Off-site/Fenceline – along Scenic Hwy and Southgate

Date: 6/27/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/28/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	18	< 0.20	< 0.20	100% (18/18)

Date: 6/29/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	9	< 0.20	< 0.20	100% (9/9)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Entergy Area/Mutual Aid Fenceline

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	54	< 0.10	1.30	89 % (48/54)
Total Hydrocarbons	4	< 1.00	< 1.00	100 % (4/4)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	35	0.10	2.90	57% (20/35)
Total Hydrocarbons	14	< 1.00	13.50	86% (12/14)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	29	< 0.10	0.20	86% (25/29)

Date: 6/17/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	13	< 0.05	0.20	15% (2/13)

Date: 6/18/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.05	< 0.05	100% (4/4)

Date: 6/19/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.05	< 0.05	100% (4/4)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Entergy Area/Mutual Aid Fenceline

Date: 6/20/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	7	< 0.20	< 0.20	100% (7/7)

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)

Date: 6/22/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/23/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/24/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/25/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/26/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

Entergy Area/Mutual Aid Fenceline

Date: 6/27/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/28/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	8	< 0.20	< 0.20	100% (8/8)

Date: 6/29/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	4	< 0.20	< 0.20	100% (4/4)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- Measurements were taken with direct read instruments over a one minute sampling period.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

WCLA

Date: 6/14/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	23	< 0.10	1.80	87% (20/23)
Total Hydrocarbons	3	< 1.00	12.10	67% (2/3)

Date: 6/15/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	19	< 0.10	16.85	47% (9/19)
Total Hydrocarbons	10	< 1.00	26.00	10% (1/10)

Date: 6/16/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	62	< 0.10	15.40	53% (33/62)

Date: 6/17/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	34	< 0.05	20.30	50% (17/34)

Date: 6/18/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	94	< 0.05	18.60	66% (62/94)

Date: 6/19/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	43	< 0.10	5.20	58% (25/43)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

WCLA

Date: 6/20/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	49	< 0.10	3.20	80% (39/49)

Date: 6/21/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	58	< 0.10	3.10	83% (48/58)
Total Hydrocarbons	2	< 1.00	< 1.00	100% (2/2)

Date: 6/22/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	30	< 0.10	1.50	83% (25/30)

Date: 6/23/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	12	< 0.10	< 0.10	100% (12/12)

Date: 6/24/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	23	< 0.10	0.30	78% (18/23)

Date: 6/25/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	14	< 0.10	0.70	93% (13/14)

Date: 6/26/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	30	< 0.10	0.20	97% (29/30)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ExxonMobil

TANK 801 INCIDENT AIR MONITORING INFORMATION:

WCLA

Date: 6/27/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	28	< 0.10	2.00	89% (25/28)

Date: 6/28/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	16	< 0.10	6.70	63% (10/16)

Date: 6/29/2012

Agent	No. of Samples	Minimum Value (ppm)	Peak Value (ppm)	Percent of Samples Below Limit of Detection
Benzene	14	< 0.10	1.50	79% (11/14)

NOTES:

- < = The result was below the lower limit of detection for the sampling method/instrument used.
- All sample data collected represent samples taken within and along barricaded areas.
- Measurements were taken with direct read instruments over a one minute sampling period.
- All entry into barricaded areas requires appropriate respiratory protection.

ATTACHMENT 3

Final Material Balance

June 14, 2012 Release Emissions Calculations

Total Emissions = Initial Release - Material Captured and Controlled - Material Treated Biologcally

Initial Release

	Benzene	Toluene	Cyclohexane	Ethyl Benzene	Hexane	Isoprene	Other VOC	Total
+ Initial Release Total = 121,845 pounds of Naphtha determined by Tank 801 Material Balance								
+ Composition of material being pumped out of Tank 801, % from last sample dated 6/12/12 @ 1800 hrs	50.86	21.76	1.53	0.24	2.79	0.02	22.80	100.00
Initial Loss from Pump Discharge Piping, pounds	**61,970**	**26,513**	**1,864**	**292**	**3,399**	**28**	**27,777**	**121,845**

Material Captured in Controlled Storage Tanks and Controlled to the BRRF Benzene NESHAP Treatment Processes, BRU

+ Volume of Tank Contents, and Constituent Concentrations from Release, in ppm

				Notes	ppm						
Tank 22 Water											
	bbls		130,000	1) Jan-Jun 2012 baseline concentrations in the captured water to WCLA prior to incident in Tanks 22, 26, 778 water are benzene @ 235 ppb, and toluene at 844 ppb							
	pounds		45,318,000	2) Conservatively assumes 0% of the cyclohexane, ethyl benzene, hexane and isoprene in the captured water was from the spill	251	72	0	0	0	0	113
Tank 22 Oil				3) Assume Other VOC in water is relative to benzene							
	bbls	0.5 feet oil @ 4190 bbls/ft plus 350 bbls pumped to BRRF for recovery @ 7.1 lb/gal	2,445	4) Assume toluene, cyclohexane, ethyl benzene, hexane, isoprene and Other VOC in the recovered oil is relative to benzene from the release. Lab data/material balance demonstrates that existing oil in Tanks 22 and 26 already contained these compounds.							
	pounds		729,099	5) Conservatively assumes 0% of the captured oil in Tank 778 is from the release. Tank 778 had a hydrocarbon heel level in it before the captured water was added.	2290	980	69	11	126	1	1026
Tank 26 Water											
	bbls		56,351								
	pounds		19,643,959		126	97	0	0	0	0	56
Tank 26 Oil											
	bbls	4.9 feet oil @ 2000 bbls/ft @7.1 lb/gal	9,700								
	pounds		2,892,540		3799	1625	114	18	208	2	1703
Tank 778 Water											
	bbls		12,364								
	pounds		4,310,090		83	117	0	0	0	0	37
Tank 778 Oil											
	bbls		None								
	pounds		None		0	0	0	0	0	0	0

+ Tank Captured Contents Summary, pounds

	Benzene	Toluene	Cyclohexane	Ethyl Benzene	Hexane	Isoprene	Other VOC	Total
	pounds							
Tank 22 Water	11,382	3,261	-	-	-	-	5,102	19,745
Tank 22 Oil	1,669	714	50	8	92	1	748	3,282
Tank 26 Water	2,471	1,897	-	-	-	-	1,107	5,475
Tank 26 Oil	10,989	4,701	331	52	603	5	4,925	21,606
Tank 778 Water	358	505	-	-	-	-	161	1,024
Tank 778 Oil	-							-
Total Material Captured, pounds	26,869	11,078	381	60	694	6	12,044	51,132

June 14, 2012 Release Emissions Calculations (con't)

Material Biologically Treated at WCLA, Not Released into the Environment)

Notes

1) This is the material from Tank 21 and Rain Basin 1 that was processed through the BRRF WWTP
2) Total biological treatment excludes the baseline concentrations of these speciated compounds based on the first half of 2012 actual concentrations to WCLA
3) Conservatively assumed no biological treatment from isoprene due to lack of data
4) July 10, 2012 data indicated that the BRRF WWTP was back to normal operation levels

Date	Speciated Pounds Treated Biologically Per TOXCHEM Modeling of WCLA Inlet							
	Benzene	Toluene	Cyclohexane	Ethyl Benzene	Hexane	Isoprene	Other VOC	Total
14-Jun	218	44	1	8	1	0	68	340
15-Jun	43	24	1	4	0	0	18	90
16-Jun	2,024	939	25	83	82	0	788	3,941
17-Jun	328	189	6	16	16	0	139	694
18-Jun	397	261	2	11	8	0	170	849
19-Jun	267	195	2	4	4	0	118	590
20-Jun	59	310	7	25	22	0	106	529
21-Jun	98	44	1	0	0	0	36	179
22-Jun	118	52	1	3	3	0	44	221
23-Jun	145	12	1	3	3	0	41	205
24-Jun	126	63	0	3	1	0	48	241
25-Jun	79	52	1	3	3	0	34	172
26-Jun	14	10	0	4	0	0	7	35
27-Jun	9	9	0	7	0	0	7	32
28-Jun	8	12	0	2	0	0	6	28
29-Jun	4	2	0	0	0	0	1	7
30-Jun	8	7	0	4	0	0	5	24
1-Jul	10	8	0	5	0	0	6	29
2-Jul	5	5	1	3	1	0	4	19
3-Jul	20	20	0	5	0	0	11	56
4-Jul	4	2	0	2	0	0	2	10
5-Jul	10	10	2	2	3	0	7	34
6-Jul	4	4	0	1	0	0	2	11
7-Jul	50	38	0	3	0	0	23	114
8-Jul	20	27	1	3	0	0	13	64
9-Jul	11	15	0	2	0	0	7	35
Total Material Biologically Treated at WCLA, Therefore Not Released into the Environment	**4,079**	**2,354**	**52**	**206**	**147**	**0**	**1,711**	**8,549**

	Benzene	Toluene	Cyclohexane	Ethyl Benzene	Hexane	Isoprene	Other VOC	Total
Total Emissions to the Environment = Total Release, Minus Captured, Minus Biologically Treated =	**31,022**	**13,081**	**1,431**	**27**	**2,558**	**22**	**14,022**	**62,164**

Last update - 7/19/2012

ATTORNEY CLIENT CONFIDENTIAL

ATTACHMENT 4

Detailed Event Timeline

DATE	TIME	DESCRIPTION / ACTIVITY
8/2011	-	Tank 801 out of service for repairs. Safety Valve and associated piping were not part of the repair
10/26/2011	-	P-53A discharge SRV prepared for mechanical work
10/27/2011	-	Safety Release Valve pulled for preventative maintenance and returned to service utilizing bleeder in question as "zero energy" valve on upstream of safety
11/8/2011	-	Maintenance repair order submitted due to pump motor drawing too many amps (85 amps vs 60-65 amps) – Loss of pressure on primary pump results in auto-start of P-53A requiring manual adjustment to maintain system discharge pressure at or below 260 psig.
1/24/2011	-	Fugitive emissions testing conducted on bleeder valve, found to be above threshold (1773 ppm vs 500ppm)
1/26/2011	-	Bleeder tightened per LDAR records
1/27/2011	-	Bleeder retested by LDAR monitoring technicians with 36 ppm reading
3/27/2011	-	Follow up testing by LDAR monitoring technicians with 15 ppm reading
6/14/2012	Day Shift	Assistant Operator (A.O.) No. 1 performed routine rounds in East Tank Field area. No indications of leak while using water pump immediately adjacent to leak location. Remained at job site while pumping water. Did not observe any unusual line vibration or anomalies.
6/14/2012	~12:00 a.m.	A.O. No. 2 made round in area, got out of vehicle and saw no issues
6/14/2012	1:54 a.m.	Leak began through open bleeder confirmed by Process Technical

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	~4:15 a.m.	Two BRRF A.O.'s called in a sweet odor to OSD FLS in East Tank Field area
6/14/2012	after 4:15 a.m.	OSD First Line Supervisor (FLS) No. 1 and No. 2 responded to leak area and talked to the BRRF A.O.'s. Noise caught OSD FLS No. 1 attention who noticed large volume of product flowing out of a bleeder.
6/14/2012	~4:30 a.m.	BRRF OSD FLS No. 2 notified CPS of leaking bleeder near T-784 and remained upwind. OSD FLS's remained on scene to determine ownership of tank, assist in blocking traffic.
6/14/2012	after 4:30 a.m.	BRCP Y Shift Superintendent notified OXO Low Pressure OC of significant leak near T-784 and responded to leak from the north side. At this time the wind was from north and no smells were observed. BRCP Superintendent parked on 20th Street and walked up Avenue A to Avenue. C looking for leak.
6/14/2012	~4:35 a.m.	OXO Operations Controller notified OXO Shift Team Lead (STL) and A.O. No. 2 of significant leak in vicinity of T-784.
6/14/2012	4:38 a.m.	Refinery Superintendent advised by OEC of leak around Ave. C and 20th
6/14/2012	~4:40 a.m.	OXO STL and A.O. No. 2 responded to area of leak. Two BRRF OSD employees in the tank field informed the STL and A.O. No. 2 of the large leak and noted possibility of benzene.
6/14/2012	~4:45 a.m.	BRCP Superintendent met OXO STL and A.O. No. 2 in the area and did not smell any odors.

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	After 4:45 a.m. ~ 5:30 a.m.	BRCP Superintendent called OSD FLS No. 2 to find his location and about the same time identified the source of the leak in the area of Tk-801 pump pit. Bleeder valve appeared to be open. • BRCP Superintendent requested water to be placed on the leak to knock down the vapors • Air monitoring officer did not have a chip for draegor and had to go to CPL to get chips. Once monitoring began, got no benzene detection along Ave. E. • The two BRRF OSD employees secured the area to eliminate any through traffic. BRRF Super arrived on scene to assist in road closures. • OXO STL noted that the closest fire monitor and SCBA were located in the "hot zone" and requested A.O. No. 2 to return to OXO CC to procure a SCBA for response to open the fire monitor and to isolate the leak. • AO no. 2 returned and opened the fire monitor in SCBA and then proceeded to shut off P-53. Leak reduced by 50%. • CSA valve to SRV blocked by A.O. No. 2 by going around behind fire wall of pumps. Could not get to the open bleeder without the additional protective clothing (PPE) (did not have Chem-Suit available) • Supers discussed notification of IH. BRCP Super took action item to notify IH. They were notified around 5:00 a.m. • BRCP Super worked with OXO OC and BRRF to tell them that material was heading via sewer system to 13/14 separators • BRRF Superintendent (Day Super) went immediately to 13/14 separator after opening Ave. E to traffic, there continued response with OSD FLS and air monitor officer • BRCP Super remained at Tk 801 until monitoring was complete. Found only the pump pit to be the hot spot.

DATE	TIME	DESCRIPTION / ACTIVITY
		Requested the monitor be left on.

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	~5:03 a.m.	Leak secured by Process blocking inlet gate valve to SRV.
6/14/2012	after 5:03 a.m.	Emergency Response gas tester came to scene, tested air quality, and noted detection for benzene in P-53 sewer basin only.
6/14/2012	after 5:03 a.m.	OXO STL attempted to close the open bleeder and could not easily close by hand. Used pipe wrench to close taking several turns to close. Bleeder appeared to be open >50%.
6/14/2012	5:04 a.m.	Release notifications initiated to Louisiana State Police / LDEQ / LEPC / NRC – Benzene > RQ
6/14/2012	5:04 a.m.	Notified State Police / LDEQ – Christy Golden; incident #12-03755
6/14/2012	5:10 a.m.	Notified LEPC - Shane
6/14/2012	5:12 a.m.	Notified NRC – Petty Officer Huggins; incident #101-4519
6/14/2012	5:15 a.m.	WCLA operator detects odor at 13/14 during hourly round. Tk-22 is still pumping to WCLA feed
6/14/2012	5:15 a.m.	Started flushing sewer
6/14/2012	5:26 a.m.	All clear by OEC for leak site, reopened Ave. E gate
6/14/2012	5:30 a.m.	IH monitoring for benzene begins

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	after 5:30 a.m.	OXO Process Coordinator went to scene to assist OXO STL and survey area for missing bleeder plugs. None were found missing. With P-53 down, worked with AP2 area to obtain discharge pressure for calculating leak rate.
6/14/2012	before 6:00 a.m.	BRRF and BRCP Superintendents agreed to continue flushing sewer system with fire water
6/14/2012	~6:00 a.m.	A.O. assisted in starting P-53A. Pressure swings and bad vibrations were observed. Valve handles were vibrating. Found SRV on the pump relieving back to tank, swapped to B pump and all indications were that the SRV had reset
6/14/2012	6:05 a.m.	Isolated 13/14 sewer system to Tk-22, started pumping all other influent streams to Tk-21 and pumping Tk-21 to WCLA feed line
6/14/2012	6:45 a.m.	Benzene concentration > 10 ppm at 13/14 Separator
6/14/2012	~6:00 a.m. till 8:00 a.m.	A.O. No. 1 executed post leak isolation activities.
6/14/2012	7:03 a.m.	Refinery Superintendent advised to block off Ave. W from 13th St thru 20th St based on gas test readings
6/14/2012	7:30 a.m.	CNIC Railroad closed
6/14/2012	~8:00 a.m.	A.O. No. 3 relieved A.O. No. 1
6/14/2012	8:00 a.m.	Update notification to LDEQ – Rachel Mroch

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	8:10 a.m.	Placed "All Call" advising on staging upwind or crosswind north of 13th St and Ave. Q west of CNIC Railroad and 13th Street per Refinery Superintendent based on gas test readings
6/14/2012	~8:15 a.m.	IH deemed area clear prior to A.O. No. 3 entry into pump area
6/14/2012	8:18 a.m.	Second all call advising on staging upwind or crosswind north of 13th Street and Ave. Q west of CNIC Railroad and 13th street per Refinery Superintendent based on gas test readings
6/14/2012	8:21 a.m.	Third all call notification with street/avenue update
6/14/2012	~8:30 a.m.	A.O. No. 3 placed P-53A back in service. SRV lifted. He opened recirculating line to lower pressure and reseat SRV. SRV set at 285 psig. Pump typically operates at 250 psig. Excessive vibration on pump and piping observed. Valve handles were vibrating. Swapped to B pump. Put A pump in "auto-start" mode. The AO noted that all bleeders were plugged at this time.
6/14/2012	8:39 a.m.	BRCP Level II Emergency Response Initiated
6/14/2012	~8:42 a.m.	Level 2 incident classification
6/14/2012	~9:00 a.m.	Investigation Team formed
6/14/2012	~9:00 a.m.	LDEQ initiated community monitoring (Rachel Mroch) – no community impact noted

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	after 9:00 a.m.	BRRF requested suspension of water flush
6/14/2012		Refinery continued response to positive benzene gas test reading
6/14/2012	9:15 a.m.	Incident investigation initiated
6/14/2012	9:35 a.m.	Update notification to State Police / LDEQ – Christy Golden; incident #12-03755
6/14/2012	9:35 a.m.	Update notification to State Police – Steve Long
6/14/2012	9:35 a.m.	Notified LSP of Toluene > RQ
6/14/2012	12:30 p.m.	Personnel testing for benzene exposure initiated
6/14/2012	12:30 p.m.	Received calculation for tank 801 release of 411 barrels from engineering
6/14/2012	~1:00 p.m.	Foam operations initiated mitigate evaporation potential
6/14/2012	1:51 p.m.	Per Refinery Superintendent, the area west of the CNIC Railroad including 13th street tunnel is clear for normal activities. 13th Street through 20th Street and Avenue Q and Avenue W will remain restricted
6/14/2012	3:37 p.m.	Sewer Alert issued

DATE	TIME	DESCRIPTION / ACTIVITY
6/14/2012	5:35 p.m.	Rain Event: 0.46 inches (< 1 hour). Level in Tk-22 rose quickly to near high level and all storm water sewers (including 13/14) were diverted to RB-1
6/14/2012	6:34 p.m.	All Call placed restricting access west of CNIC Railroad 13th Street Tunnel, 13th & 20th Street between Avenue W through Avenue Q
6/14/2012	8:15 p.m.	Refinery Superintendent was notified that CNIC Railroad Train Master reported a sweet smelling odor causing headaches to Railroad employees. Advised to remove all CNIC employees from the area.
6/14/2012	8:50 p.m.	After rain event, 13/14 sewers were slowly pumped to Tk-22 until high level (30 ft), then the tank was blocked in.
6/14/2012	10:06 p.m.	Refinery Superintendent issued an I-Notification for Level 1 – Unusual Event
6/14/2012	10:12 p.m.	Once Tk-22 was full, 13/14 water was lined up to Tk-26. Tk-26 continued normal operation of pumping water bottoms to the Bz stripper
6/15/2012	1:30 a.m.	Refinery Superintendent allowed CNIC Railroad to travel down the main railroad line through the facility
6/15/2012	3:51 a.m.	Refinery Superintendent issued all call to resume normal work activity in the Refinery between Avenue W & Q and 13th & 17th street. However, the area between 17th & 20th Street and between Avenue W & Q remained restricted until further notice.
6/15/2012		Fence line monitoring results continue to demonstrate no community impact with all monitoring locations at below detection.
6/15/2012		Recovery and treatment operations continue as well as fence line and unit air monitoring.

DATE	TIME	DESCRIPTION / ACTIVITY
6/15/2012	2:30 p.m.	Once Tk-26 was full, 13/14 water was pumped to Tk-778, while flushing 13/14 sewer lines with fire water
6/15/2012	3:30 p.m.	Update Notification to LDEQ – Rachel Mroch
6/15/2012	3:30 p.m.	Incident Updates initiated with LSP / LDEQ [Rachel Mroch (LDEQ), Gene Dunegan (LSP), Steve Long (RTK)]
6/15/2012	3:42 p.m.	Update Notification to State Police – Gene Edmundson
6/15/2012	4:00 p.m.	Update Notification to State Police – Steve Long
6/15/2012	4:15 p.m.	DPS Hazmat Hotline updated with same information given to response personnel
6/15/2012	4:15 p.m.	Update Notification to State Police / LDEQ – Mick; incident #12-03755
6/15/2012	4:24 p.m.	All call placed for the closing of 13th Street tunnel per Refinery Superintendent
6/15/2012	5:44 p.m.	Mutual aid gate opened for Industrial Hygiene to monitor air quality
6/16/2012		Fence line monitoring results continue to demonstrate no community impact with all monitoring locations at below detection.
6/16/2012	1:05 a.m.	13/14 water sample results, from 6/15 @ 14:30, indicated 25.7 ppm Bz (low enough to enter Tk-21 and be below 10 ppm @ WCLA feed). All flows were sent to Tk-21, then WCLA feed.

DATE	TIME	DESCRIPTION / ACTIVITY
6/16/2012	4:15 p.m.	Update Notification to LDEQ – Cheryl Nolan
6/16/2012	4:45 p.m.	LDEQ notifies site of complaint investigation (Cheryl Nolan / Derek Reese)
6/16/2012	5:03 p.m.	LDEQ onsite for incident review and conduct SUMMA canister monitoring and VOC monitoring. Communicate to LDEQ that emissions estimate may be 2-3X initial estimates – awaiting sample results to improve material balance.
6/16/2012	7:30 p.m.	Liaison with EPA Region VI Response Desk with incident update (Roberto Bernier)
6/16/2012	7:55 a.m.	Opened gate 34 for CNIC Industrial Hygiene personnel
6/16/2012	8:30 a.m.	CNIC Industrial Hygiene personnel exit the complex
6/16/2012	9:23 p.m.	Rain Basin-1 began pumping into the unit feed line, along with Tk-21
6/16/2012	10:25 p.m.	Sample results, from 6/16 @ 11:30, indicated 52.8 ppm Benzene @ WCLA feed and 107 ppm Benzene in Tk-21. Stopped feeding RB-1 and Tk-21 to WCLA feed. Only normal WCLA influent streams (zero Benzene from spill) fed directly to unit.
6/17/2012		Fence line monitoring results continue to demonstrate no community impact with all monitoring locations at below detection.
6/17/2012		Recovery and treatment operations continue as well as fence line and unit air monitoring.
6/17/2012	8:29 a.m.	Pumped residual rain water into Tk-21 to help dilute.

DATE	TIME	DESCRIPTION / ACTIVITY
6/17/2012	9:48 a.m.	Incident update to LSP / LDEQ
6/17/2012	10:15 a.m.	Update Notification to State Police / DEQ – Trameka; incident #12-03755
6/17/2012	10:16 a.m.	DPS Hazmat Hotline updated with same information given to response personnel.
6/17/2012	6:55 p.m.	Tk-21 sample results, from 6/17 @ 10:00, indicated 14.3 ppm Bz. All flows sent back to Tk-21 and to unit feed
6/17/2012	7:18 p.m.	Liaison with EPA Region VI Response Desk with incident update (Roberto Bernier)
6/18/2012		Fence line monitoring results continue to demonstrate no community impact with all monitoring locations at below detection.
6/18/2012		Recovery and treatment operations continue as well as fence line and unit air monitoring.
6/18/2012	11:30 a.m.	EPA notes intent to conduct Site Visit – Wes McQuiddy
6/18/2012	12:23 p.m.	Rain Event: 0.18 inches. Uncontaminated rain water pumped to Rain Basin - 1
6/18/2012	1:30 p.m.	Incident Review with LDEQ
6/18/2012	2:15 p.m.	OSHA conducting on-site review of incident response efforts
6/18/2012	4:52 p.m.	Update notification to State Police / LDEQ – Mick; incident #12-03755

DATE	TIME	DESCRIPTION / ACTIVITY
6/18/2012	4:54 p.m.	Update Notification to LEPC - Kasie
6/18/2012	10:00 p.m.	WCLA feed water sample results, from 6/18 @ 14:00, indicated 24.2 ppm Benzene. Stopped feeding Tk-21 to WCLA unit feed. Only normal WCLA influent streams (zero Benzene from spill) fed directly to unit.
6/19/2012		Fence line monitoring results continue to demonstrate no community impact with all monitoring locations at below detection.
6/19/2012		Recovery and treatment operations continue as well as fence line and unit air monitoring.
6/19/2012	7:00 a.m.	All captured spill material is being processed through the refinery's Benzene Stripped Towers
6/19/2012	8:00 a.m.	Incident Overview with LDEQ (Cheryl Nolan / Celena Cage / Derek Reese)
6/19/2012	12:54 p.m.	All flows sent back to Tk-21 and to unit feed.
6/19/2012	1:00 p.m.	Incident Review/Site Visit with EPA – Wes McQuiddy/Derek Reese/Stan Labat
6/19/2012	3:00 p.m.	Update Notification to LDEQ – Cheryl Nolan/Derek Reese
6/19/2012	5:40 p.m.	Update Notification to State Police / LDEQ – Mick; incident #12-03755
6/19/2012	5:42 p.m.	Update Notification to LEPC – Kasie

DATE	TIME	DESCRIPTION / ACTIVITY
6/20/2012	7:00 a.m.	RB-1 began pumping into the unit feed line, along with Tk-21
6/20/2012	11:00 a.m.	Update Notification to LDEQ – Cheryl Nolan/Derek Reese