ENVIRONMENTAL PROTECTION AGENCY

REGION 6
Enforcement Division
1445 ROSS AVENUE
DALLAS, TEXAS 75202

FROM: **Minerva De Leon, Inspector**
Surveillance Section (6EN-ASH)

TO: **Samuel Tates, Chief** Samuel Tates 11/7/2012
Surveillance Section (6EN-AS)

A Risk Management Prevention Program - 40 CFR Part 68 Compliance Inspection was conducted on July16-20, 2012 at the following location:

FACILITY NAME:	**ExxonMobil Baton Rouge Refinery**
ADDRESS:	4045 Scenic Highway
CITY:	Baton Rouge, Louisiana 70805

Lead Inspector:	Ms. Minerva De León (6EN-ASH)
Enforcement Officer HQ:	Mr. Craig Haas (OSWER)
EPA HQ Contractor:	Mr. Andrew Loll, ERG Contractor
EPA HQ Contractor:	Mr. Dan Roper, ERG Contractor
LDEQ Inspector:	Mr. Kevin Sweeny, Environmental Scientist

TYPE FACILITY: FEDERAL ( ) INDUSTRIAL(X)

112r(x) RMP (x)

REGION 6
ENFORCMENT DIVISION
SURVEILLANCE SECTION
RMP INSPECTION REPORT

Report Date:	11/05/2012
Inspection Date:	7/16/2012-7/20/2012
Type of Inspection:	CAA 112(r) (1), 112(r) (7), and 40 CFR § 68
Company Name:	ExxonMobil Baton Rouge Refinery
Mailing Address:	4045 Scenic Highway Baton Rouge, LA 70805
Email:	steve.blume@ExxonMobil.com
Type of Industry/NAIC/SIC/AFS: AFS number	32411 Petroleum Refineries
EPA Facility Identifier:	1000 0009 1768
RMP number#	10000004754
Latitude:	30.48656
Longitude:	-091.69369
Lead Inspector:	Minerva De Leon Date: 9/27/2012 9/27/2012
EPA Inspectors:	Craig Haas -OECA
EPA Contractors:	Andrew Loll, Dan Roper (ERG)
LDEQ Inspector:	Mr. Kevin Sweeney
Reviewed by:	Guadalupe Pena Date: 11/7/2012

ExxonMobil Baton Rouge Refinery
INSPECTION REPORT

Executive Summary:

On June 14, 2012, at approximately 4:35 am, the Baton Rouge ExxonMobil Chemical Company discovered a leaking bleeder plug at Tank 801, which is located at the Baton Rouge Refinery plant's Aromatics Production Unit. At approximately 5:04 am (according to the Compliance Order from State of Louisiana, Department of Environmental Quality, Office of Environmental, Compliance (LDEQ) and ExxonMobil notification report), the ExxonMobil Chemical Company notified the Louisiana Police of the leaking bleeder valve release. At the time, ExxonMobil (Chemical Company and Refinery) did not consider the incident to be an emergency release, according to the facility. ExxonMobil did inform the Louisiana State Police that there was a release over the reportable amount, but they had not calculated the amount or estimated how much was released and did not want to alarm or set off a panic (as stated by ExxonMobil management in the RMP EPA closing on July 20, 2012). By July 20, 2012 ExxonMobil Chemical submitted to LDEQ that the total amount released was 28,688 lbs of Benzene, 10,882 lbs of Toulene, 1,100 lbs of Cyclohexane, 1,564 lbs of Hexane, and 12, 605 lbs of additional Volatile Organic Compounds (VOC). On June 21, 2012, LDEQ initiated a multimedia inspection. On July 19, 2012, LDEQ issued a compliance order with potential penalty (AE-cn_120-00835 see attachment A) for each day of violation.

On July 16–20, 2012, an unannounced compliance inspection team comprised of staff from EPA and EPA's contractor, Eastern Research Group, Inc. (ERG), inspected the ExxonMobil Baton Rouge Refinery Facility located in Baton Rouge, Louisiana for compliance with Clean Air Act (CAA) § 112(r) and the Risk Management Program under 40 CFR Part 68.

The inspection report contains the following sections numbered I through IV.

Section I discusses the purpose of the inspection, and names and phone numbers of individuals involved in the inspection.

Section II contains background on the refinery, including a general description of the portion of the facility inspected.

Section III includes a discussion on the findings of the inspection organized by regulatory requirement. Only the highlights of the inspection are stressed. Detailed records reviews occurring during the inspection are not discussed unless specific concerns were raised during the review of the records the facility is required to maintain. Note that the findings stated in Section III of the report may include non-compliance, compliance, and alleged areas of concern. This should not preclude any further enforcement document review, legal review, or further enforcement action.

Section IV includes a summary of areas of concern discovered during the inspection and closing conference.

Section (I)
Purpose:

The ExxonMobil Refinery inspection was preselected at the beginning of the fiscal year as one of Region 6's high risk facilities (large amount flammables, toxics, and receptors) and was conducted unannounced on July 16–20, 2012. A compliance inspection team comprised of staff from EPA Region 6, EPA Headquarters, and EPA's contractor, Eastern Research Group, Inc. (ERG), inspected the ExxonMobil Corporation Baton Rouge Refinery facility (BRRF) located in Baton Rouge, LA for compliance with Clean Air Act (CAA) § 112(r) and Risk Management Program requirements. The EPA inspection team made entry at the facility located at 4045 Scenic Highway in Baton Rouge, Louisiana on July 16, 2012. The EPA inspectors presented their credentials and the ERG inspectors introduced themselves as EPA contractors. The lead inspector advised BRRF that CAA § 112(r) requires employee representatives be given the opportunity to participate in the physical inspection of the facility. Brad Butler, a representative from the United Steelworkers union, was present during the inspection. The EPA inspection team provided an exit briefing to BRRF management, key facility, and corporate representatives on July 20, 2012.

The inspection team focused on 40 CFR Part 68 requirements for Program Level 3 processes covered in the Risk Management Plan (RMP). ERG specifically evaluated BRRF's operations for compliance with the following RMP elements:

Process Safety Information (PSI) – 40 CFR 68.65;

Process Hazard Analysis (PHA) – 40 CFR 68.67;

Operating Procedures – 40 CFR 68.69;

Incident Investigation – 40 CFR 68.81; and

Hot Work Permit – 40 CFR 68.90–68.95.

Table 1 lists key personnel who participated in this inspection:

Table 1. List of Key Personnel Involved in Inspection

Name	Position	Phone	E-mail
Derek Reese	Senior Section Supervisor	225-977-0609	j.derek.reese@ExxonMobil.com
Stan Labat	Senior Section Supervisor	225-977-7226	stan.n.labat@ExxonMobil.com
Paul Leinweiber	Risk Management Adviser	225-977-8873	paul.d.leinweber@ExxonMobil.com
Mark Chavez	Attorney		mark.a.chavez@ExxonMobil.com
Ryan Wong	Refinery Safety Engineer	225-977-8857	ryan.l.wong@ExxonMobil.com
Bradley Butler	USW Safety Officer	225-977-4723	Brad W.Butler@ExxonMobil.com
Minerva De Leon	EPA Lead Inspector	281-983-2149	deleon.minerva@epa.gov
Craig Haas	EPA Inspector	202-564-6447	haas.craig@epa.gov
Andy Loll	Senior Chemical Engineer, ERG	703-633-1645	andrew.loll@erg.com
Dan Roper	Chemical Engineer, ERG	703-633-1694	dan.roper@erg.com

Section (II)
Background and General Description:

Historical information

ExxonMobil Refining and Chemicals Company L.P. is a refiner, transporter and marketer of transportation fuels, lubricants, petrochemicals, refined waxes, asphalt and other industrial products. BRRF supplies high octane gasoline, diesel fuels and petrochemicals. The refinery was constructed in 1909 as Standard Oil Company of Louisiana on a cotton field on the bluffs of the Mississippi River. Initially, it employed 700 residents of Baton Rouge, a city of 15,000 and at that time, it processed 1,800 barrels oil daily.

Today, the BRRF is the second largest refinery in the United States. Occupying 2,100 acres, the refinery processes over 502,000 barrels of crude oil daily. More than 2,200 employees and contractors work at the BRRF. The refinery has several regulated flammables, and processes hydrogen sulfide, which is also a regulated substance. Hydrogen sulfide is below the regulated threshold quantity to be addressed in the RMP but is still covered by the Accidental Release Prevention and the Emergency Response programs. All process descriptions can be found in the Title V permits and in previous EPA inspection reports.

The refinery manufactures more than 300 products, including:

Motor gasoline (automobiles, tractors, lawn equipment)

Diesel fuel (autos, trains, boats, heating, power generation)

Jet fuel (jet airliners, military jets)

Aviation gasoline (propeller aircraft)

Lubricating oils (engine oils, transmission fluid, chain saws)

Waxes (makeup, candles, crayons and gum)

Petroleum coke (furnace fuel, anodes for aluminum production)

Liquefied petroleum gas (heating, cooking, refrigeration, tobacco and grain drying, soldering, chemical feedstock)

Chemical feedstock (used to produce chemicals)

Description of processes inspected

BRRF has 18 covered processes in its most recent RMP, submitted to EPA on June 19, 2012. All 18 covered processes are Program Level 3. Table 2 below lists these processes, the regulated chemicals in the processes, and the quantities of those chemicals as provided in the RMP.

Table 2. BRRF RMP Processes

Process	Process Chemical(s)	Quantity (lb)
Alky	Flammable Mixture	2,700,000
Feed–MGO Tanks	Flammable Mixture	74,000
Gas Collection	Flammable Mixture	6,906,000
HHLA–N/S/E	Flammable Mixture	380,000
HCLA	Flammable Mixture	950,000
HULA	Flammable Mixture	73,000
KDLA	Propane	120,000
Knox Field–Mogas Blending	Butane	7,600,000
	Pentane	10,000,000
1/2 LEU	Flammable Mixture	3,000,000
3 LEU-N	Flammable Mixture	1,000,000
3 LEU-S	Flammable Mixture	14,061,000
4 LEU	Flammable Mixture	820,000
5/6 LEU	Flammable Mixture	860,000
PCLA-2	Flammable Mixture	1,800,000
PCLA-3	Flammable Mixture	1,500,000
PHLA-2, RHLAs, Feed Prep	Flammable Mixture	1,500,000
Propane Storage	Flammable Mixture	2,300,000
T-210 Splitter, HCN, ICN	Flammable Mixture	1,200,000
Total Flammables		**56,844,000**

BRRF has several processes with "LA" in the abbreviation to indicate the unit is located in Louisiana.

The two Powdered Catalyst units (PCLA-2 and PCLA-3) are fluid catalytic cracking units that convert heavy distillates (e.g., gas oils and distillation tower bottoms) to gasoline range hydrocarbons. The Hydrocracker (HCLA) also cracks gas oils into diesel fuel and jet fuel under high pressure using fixed catalyst reactors.

The Alkylation Unit (Alky) uses sulfuric acid as a catalyst to combine olefins with isobutane to form a high octane number gasoline blending stock called alkylate. The Powerformer or Platinum Hydroformer (PHLA-2) is a catalytic reformer that increases the octane number of naphthas for gasoline blending.

BRRF has six Light Ends Units that fractionate light hydrocarbons. The Tower 210 (T-210 Splitter) is a pentane splitter associated with the PCLAs.

BRRF has several hydrotreaters that use hydrogen to remove sulfur from hydrocarbon streams. The Reformer Hydrotreaters (RHLA 1 and 2) treat reformer feed to prevent sulfur from poisoning the platinum-based reforming catalyst. The Heating Oil Hydrofiners (HHLA–N/S/E) treat diesel fuel, jet fuel, and heating oil to meet product sulfur specifications. The Hydrofiner Unit (HULA) started up in 2010 and removes sulfur from nonroad diesel fuel to meet a new 15 ppm sulfur specification. The Heavy Cat Naphtha (HCN) and Intermediate Cat Naphtha (ICN) units treat naphtha from the two PCLA units for gasoline blending.

The Ketone Dewaxing Unit (KDLA) uses methyl ethyl ketone to dewax lube oil base stocks.

The Feed–MGO tanks store medium gas oil while the Knox Field tank farm includes storage for motor gasoline (Mogas). The Propane (C3) Storage area includes pressurized storage (i.e., bullets) and transfer systems for ethane, propane, and butanes.

The Gas Collection system recovers light hydrocarbon gases for use as furnace fuel and light hydrocarbon liquids for further processing. Gas collection also includes the refinery's flares for disposal of gas that is not recovered.

ExxonMobil also owns and operates the adjacent Baton Rouge Chemical Plant (BRCP). BRCP is covered under a separate Risk Management Plan from BRRF.

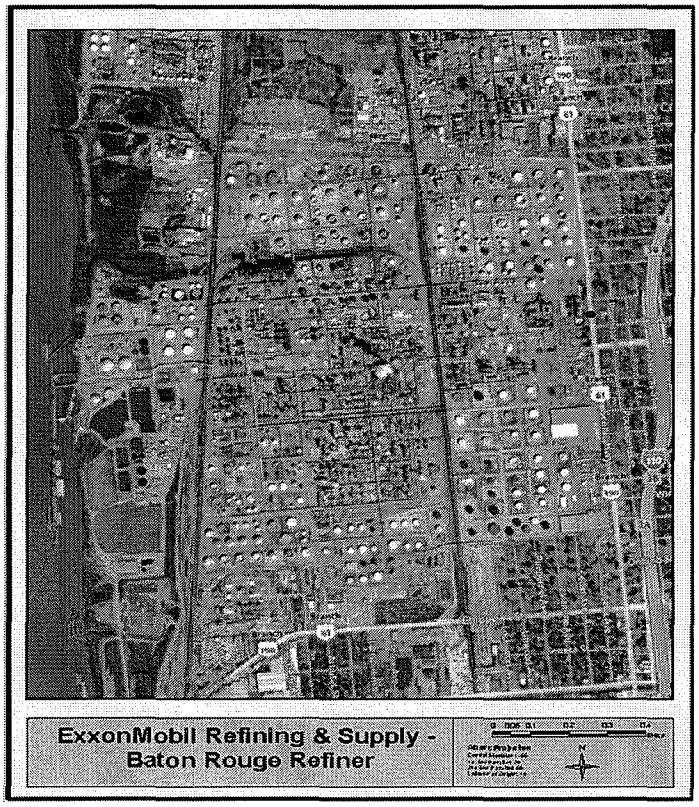

Figure 1: Aerial View of the ExxonMobil Baton Rouge facility

Section (III)
Inspection Findings:

PART 68—CHEMICAL ACCIDENT PREVENTION PROVISIONS
Subpart A – General

§68.3 - **Definitions**

Accidental release means an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source.

Covered process means a process that has a regulated substance present in more than a threshold quantity as determined under § 68.115.

§68.10 – **Applicability**

BRRF is a stationary source facility. BRRF's RMP indicates that the facility has more than a threshold quantity of a regulated substance in a process, so these regulations are applicable. Table 2 presented the quantity of regulated chemicals that BRRF reported in their RMP.

§68.12 - **General requirements**

BRRF has submitted a single RMP that reflects all covered processes. As a facility with program 3 processes, BRRF must (1) develop and implement a management system, (2) conduct a hazard assessment, (3) implement the prevention requirements of 68.65 through 68.87, (4) develop and implement an emergency response program, and (5) submit the data elements from 68.175 in their RMP. The facility conducts these objectives under a program called Operations Integrity Management System (OIMS).

Attachment A contains the RMP Program Level 3 Inspection Checklist and Attachment B contains a Photo Log for the inspection.

§68.15 – **Management**

BRRF has developed a management system that oversees the implementation of the risk management program elements, assigned a qualified person or position to oversee the RMP, and assigned positions responsible for portions of the RMP. BRRF provided a summary of its RMP management system and how it relates to ExxonMobil's OIMS, along with a list of the current site OIMS sponsors and administrators (Attachment C). Table 3 below provides a crosswalk of RMP elements to OIMS elements.

Table 3. RMP–OIMS Crosswalk

RMP Element	OIMS Element
§68.65 Process Safety Information	4.1 Documentation
§68.67 Process Hazard Analysis	2.1 Risk Assessment
§68.69 Operating Procedures	6.1A Operations Procedures
§68.71 Training	5.4 Training
§68.73 Mechanical Integrity	3.1 Facilities Design & Construction
	6.1B Mechanical Procedures
	6.4 Mechanical Integrity
§68.75 Management of Change	7.1 Management of Change
§68.77 Pre-Startup Review	3.1 Facilities Design & Construction
§68.79 Compliance Audits	11.1 Assessment
§68.81 Incident Investigation	9.1 Incident Investigation
§68.83 Employee Participation	1.1 Management Leadership, Commitment and Accountability
§68.85 Hot Work Permit	6.2 Work Permits
§68.87 Contractors	8.1 Third Party Services
§68.90–95 Emergency Response	10.1 Emergency Preparedness
	10.2 Community Awareness

Subpart B – Hazard Assessment

§68.20 – **Applicability**

BRRF is a stationary source with Program 3 processes. Since BRRF is subject to this part, they are required to prepare a worst case release scenario analysis and complete the five-year accident history.

§68.25 – **Worst-Case Release Scenario Analysis**

BRRF submitted a flammables worst case scenario based on a release of butane. BRRF did not report any toxic worst case scenarios in their current RMP and facility representatives stated they did not have toxic chemicals above a threshold quantity in a process. The EPA inspection team asked about chlorine and ammonia use at the refinery:

- Chlorine was replaced with bleach at cooling water towers; and was below the threshold quantity (Attachment D – Letter from ExxonMobil regarding Response to non-filer RMP)
- 29-percent aqueous ammonia is used in Thermal DeNOx selective noncatalytic reduction (SNCR) systems at PCLA-2 and PCLA-3, but it is piped from the adjacent chemical plant and is below the threshold quantity inside the refinery processes (Attachment D).

§68.42 – **Five-Year Accident History**

BRRF reported no accidents in its five-year accident history in the current RMP. BRRF provided information on eight incidents that BRRF investigated under §68.81, as well as other incidents that BRRF investigated but claimed did not result in, and could not reasonably have resulted in, a catastrophic release of a regulated substance. The EPA inspection team requested a selection of the incident reports for further review. Incident investigations are discussed further in §68.81 – Incident Investigation.

Event Incident #314938 was not reported in the RMP as an accidental release from a covered process. However, nine people were transported to the local hospital for a release (carbon monoxide) from a covered process with possible exposure. EPA document #0735 relates that PCLA-# 3 (Fluid Catalytic Cracking) is a covered process and that the event also released other flammables. The reporting requirements in §68.42 require that the owner or operator shall include in the five year accident history all accidental releases from a covered process that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage or an environmental damage (Attachment E - EPA document 1193 in Incidents).

This incident occurred on May 7, 2009 and at the time of the inspection the RMP had not been updated to reflect this occurrence. This incident should have been reported within six months of its occurrence in an updated RMP submittal.

Subpart D – Program 3 Prevention Program

§68.65 – **Process Safety Information**

BRRF maintains process safety information (PSI) in various electronic and hardcopy systems. A binder is prepared prior to each unit process hazards analysis (PHA) which includes the Piping and Instrumentation Diagrams (P&IDs) used during the PHA process. BRRF has developed Startup, Shutdown, and Emergency Procedures (SSEP) binders that include chemical, physical, and reactivity data for the process. The Material Safety Data Sheets (MSDSs) are stored as hardcopies in the Refinery Operations Control Center (ROCC) and electronically on the refinery's intranet site. BRRF maintains its safe operating limits in the Operating Envelope (OE) database which is available on-line to operations staff. The OE limits database includes a field that presents the consequence of deviation and the action to take to mitigate the deviation.

The OE limits for the HCLA and PCLA units were requested and BRRF provided the documents (refer to Attachment F). BRRF provided a copy of the maximum intended inventory upon request (refer to Attachment G).

BRRF provided P&IDs for the D-115 Condensate Blowdown Tank (P&ID # A-26116-7-0800-702) and the E-103 A/B/C/D/E fractionation feed heat exchangers (P&ID # A-26116-7-0145-702) (refer to Attachment H). A site visit to both process areas confirmed the P&IDs are accurate

for select P&ID elements surveyed. Photographs #1, #2, and #3 in Attachment B show the E-103 heat exchangers and D-115 Condensate Blowdown Tank.

§68.67 – **Process Hazard Analysis**

BRRF provided access to documentation of each process hazard analysis (PHA) for all RMP processes. BRRF had conducted a knowledge-based Hazard and Operability study (HAZOP) for each RMP process within the last five years of the inspection, and had documentation for the life of the processes. BRRF was in its fifth PHA cycle at the time of the inspection. Table 4 below provides a history of the PHAs conducted for the RMP processes.

Table 4: Process Hazard Analysis Chronology

	PHA Cycles				
Process	**First**	**Second**	**Third**	**Fourth**	**Fifth**
Alky	1991	1996	2001	2006	June 2011
Feed–MGO Tanks	None	None	2002	2007	March 2012
Gas Collection	None	1996	2001	2006	Jan. 2011
HHLA–N/S/E	1995	1998	2003	Dec. 2007	
HCLA	1990	1995	2000	2005	March 2010
HCN/ICN	None	None	2001	2006	Oct. 2010
KDLA	1993	1998	2003	March 2008	
Knox Field–Mogas Blending	None	1995	2000	2005	Jan. 2010
1/2 LEU	None	1995	2000	2005	June 2010
3 LEU-N	1994	1999	2004	Feb. 2009	
3 LEU-S	1993	1998	2003	June 2008	
4 LEU	1994	1999	2004	August 2009	
5/6 LEU		1995	2000	2005	April 2010
PCLA-2	1993	1998	2002	2007	March 2012
PCLA-3	1992	1997	2001	2006	August 2010
PHLA-2	1993	1998	2003	July 2008	
Propane Storage	1994	1999	2004	Oct. 2009	
RHLA 1 & 2/Feed Prep	1994	1999	2004	Feb. 2009	
T-210 Splitter	None	None	2001	2006	Oct. 2010

The HULA is a relatively new process and its original design HAZOP was included in its project file, rather than with the other PHAs at the time of the inspection; so it was not included in Table 4. The EPA inspection team selected the latest PHAs for HCLA, PCLA-2, and PCLA-3 for further review (Attachment I - HAZOP Guide and HCLA and PCLA summary reports).

§68.67(c)(6) - Human Factors

When reviewing the HAZOP at the facility, the HAZOP for HCLA operators recommended identifying the minimum number of operators required to start up the HCLA and including this requirement in the HCLA startup procedures. However, this HAZOP did not address the similar issue that a minimum number of operators would be required in emergencies to implement emergency procedures.

§68.69 – **Operating Procedures**

BRRF maintains operating procedures for all unit operations in the shut down, startup emergency procedures. The SSEPs are certified annually by the unit section supervisor. BRRF requires all certifications to be completed by May 26 of each year, which is the anniversary date of the OSHA Process Safety Management (PSM) regulations. BRRF provided the annual certification emails for each process unit for 2008 through 2012 (refer to Attachment J). Table 5 contains a summary of the annual certification dates. The dates in bold indicate certification dates that are greater than one year from the previous annual certification date.

Table 5. BRRF Operating Procedures Annual Certification

Process Name	2008	2009	2010	2011	2012
Alky	5/13/08	**7/24/09**	4/12/10	3/15/11	3/14/12
KDLA	5/14/08	3/6/09	**4/15/10**	3/3/11	3/23/12
Knox Field–Mogas Blending	4/27/08	2/16/09	**3/16/10**	3/15/11	4/18/12
Feed–MGO Tanks	4/27/08	2/24/09	**3/26/10**	3/17/11	**3/29/11**
HHLA–N/S/E	5/16/08	5/12/09	4/19/10	**4/29/11**	**5/15/12**
HCLA	5/16/08	5/12/09	4/19/10	**4/29/11**	**5/15/12**
PHLA-2, RHLAs, Feed Prep	4/27/08	4/23/09	4/5/10	3/31/11	3/15/12
T-210 Splitter, HCN, ICN	4/27/08	4/23/09	4/5/10	3/31/11	3/15/12
1/2 LEU	5/13/08	**7/24/09**	4/12/10	3/15/11	3/14/12 (1)
3 LEU-S	5/13/08	**7/24/09**	4/12/10	3/15/11	3/14/12
3 LEU-N	5/13/08	**7/24/09**	4/12/10	3/15/11	3/14/12
4 LEU	4/28/08	2/16/09	**3/16/10**	3/15/11	3/14/12
5/6 LEU	4/28/08	2/16/09	**3/16/10**	3/15/11	3/14/12
Propane Storage	4/28/08	2/16/09	**3/16/10**	3/15/11	3/14/12
Gas Collection	4/28/08	2/16/09	**3/16/10**	3/15/11	3/14/12
PCLA-2	4/29/08	**5/12/09**	4/12/10	3/30/11	3/30/12
PCLA-3	4/29/08	**5/12/09**	4/12/10	3/30/11	3/30/12
HULA	NA	NA	NA	5/18/11	5/15/12

Bold text denotes certification dates that are greater than one year from the previous certification date.

The SSEP for each process unit contains startup, shutdown, emergency procedures, special procedures and relevant facility safety and environmental procedures. The SSEP contains a unit overview, process chemistry, detailed process descriptions including process flow diagrams,

identifies the safety equipment and instrumentation, and describes hazards in the unit operations. The controlled copies of the procedures are located in the process unit's control room (e.g., ROCC). BRRF maintains its safe operating limits in the OE limits database which is available online to operations staff. The OE limits database includes a field that presents the consequence of deviation and the action to take to mitigate the deviation.

The OE limits for the HCLA and PCLA units were requested and BRRF provided the documents (refer to Attachment F). Areas of concern related to operating procedures are presented in Section IV.

§68.71 - **Training**.

BRRF provided training records for all employees for one year from a database training record management system. Additionally, BRRF provided training records for the mechanical integrity inspectors for two years. The EPA inspectors selected one person from each unit to review their complete training history. The training histories were provided in Excel format (Attachment K). Training for contractors is managed by the Baton Rouge Contractor Council which verifies the training for the particular contractor for that specific facility. Emergency, maintenance, operations, and basic training are extensive, and include computer-based, classroom, and hands-on. EPA observed the new operators training classes and requested operator training records. No area of concern was noted with BRRF training procedures or with any operator lacking refresher or modules. BRRF has a very long, extensive training program that must be completed before a new outside operator or control room operator is allowed to function on his own, without supervision.

§68.73 – **Mechanical Integrity**

The EPA inspection team conducted several site visits into the plant during the inspection. During the site visits, the team observed several instances of piping, valve, and vessel corrosion in the HCLA and PCLA unit blocks. Photographs #4 through #9 in Attachment B show examples of the corrosion that was pervasive in the area. The unit operators stated the corrosion was mainly due to corrosive vapor from the PCLA Wet Gas Scrubber (WGS) located in the area. BRRF revamped the scrubber during a 2009 turnaround to reduce SO_2 and particulate emissions, and improve water droplet removal. BRRF provided a summary of past WGS sulfuric acid emissions tests, shown in Table 6 below. BRRF did not provide the measurement units for this summary, but did provide the May 2012 and November 2003 test reports, which indicate the sulfuric acid emissions are in pounds per hour (lb/hr).

Table 6: WGS Sulfuric Acid Emissions

Test Period	Average Sulfuric Acid using Method 8	Units
May 2012	27.37	lb/hr
November 2003	47.64	lb/hr
April 2003	54.02	Unknown
March 2003	2.88	Unknown
November 2002	2.53	Unknown
May 2002	14.51	Unknown
June 2000	32.20	Unknown
June 1999	30.36	Unknown

BRRF fixed equipment manual is integrated into the design, construction, maintenance and operation of all facilities. The manual is required to meet the commitment of BRRF's OIMS which outlines the requirements of the RMP program and is established for each site, not just the Refinery. This system is supposed to enable the long term reliability of plant equipment of all the elements of the RMP, and minimize the potential for equipment failure. It was also developed to assure that site inspection activities are in compliance with OIMS Section 6.4. The OIMS system is included with this report (Attachment L). A statement on page 2 of the document states that the reliability and integrity of fixed equipment is crucial in maintaining containment of processes including the proper inspection intervals.

§68.73 (b) - **Written procedures**

In the last five years, BRRF did not inspect over 1000 underground pipes with liquid and gas flammables and a variety of hazardous chemicals. The quality assurance function defines proper procedures for the facility, but if it is not being conducted, it is not an effective tool. Today, BRRF has over 249 underground piping inspections overdue. Also, there are no historical records to know the integrity of these pipelines to date. BRRF has undertaken the underground piping inspections and has committed to excavate most of the pipes and conduct all the inspections that are required. Many of the underground piping inspection records reviewed by the lead inspector showed the pipes to be heavily corroded. It is imperative that all the pipe be inspected and that the P&IDs reflect the exact location of these pipes in order to conduct future interval inspections and to avoid incidents with leaking underground pipelines as a possible ignition source.

§68.73 (c) - **Training for process maintenance.**

BRRF training is extensive and detailed. The facility keeps many training records. I (Lead Inspector) observed an operator's class taking place. Additionally, I selected a few random operators, technicians, and maintenance workers records and reviewed them, going back five years.

§68.73 (d) (2) - **Inspection and testing**.

BRRF provided a record showing out-of-date inspections for pipes (Attachment M).

§68.73 (d) (3) – **Compliance with manufacturers recommendations and good engineering practices**

BRRF did not follow API standards 571, 570, or any API RP 580 or 581 to estimate the soil corrosion for many decades. BRRF did not inspect underground piping, nor did BRRF inspect and test process equipment. Also, BRRF did not follow recognized generally accepted good engineering practices. BRRF was not consistent with applicable manufacturers' recommendations and good engineering practices.

§68.73 (d) (4) – **Inspection Records**

The lead inspector requested inspection records of the underground piping. BRRF has not documented the underground piping inspections and had no historical records to provide any documentation of prior years' inspections.

§68.73 (e) - **Equipment deficiencies**

The rules state that the owner or operator shall correct deficiencies in equipment that are outside acceptable limits defined by the PSI in 68.65 before further use or in a safe and timely manner when necessary means are taken to assure operation.

If the location of the pipes, the mechanical integrity, or reliability of these pipes is unknown, the PSI cannot be established as required in 68.65 (a). This information must be compiled on all equipment, including the mechanical integrity of process pipes, before conducting any PHA.

The lead inspector requested all of the mechanical integrity inspections concerning (1) pressure vessels and storage tanks, (2) piping systems including valves, relief vents systems and critical devices, (3)emergency shutdown systems and digital control systems, sensors, alarms interlocks and (4) rotating equipment like compressors, pumps, fans, and electrical motors. BRRF stated that they only failed to be inspect the underground piping. I then asked the mechanical integrity personnel to provide me a list of the existing equipment with deficiencies that were in need of repair, and that had been isolated due to these inspections. BRRF provided a list of equipment that was inspected and needed to be repaired. This equipment was requested to be repaired on January 23, 2011. In addition to the underground piping, there were about 20 more areas that were overdue for inspections. BRRF provided 52 work orders on equipment that had been inspected, but the deficiencies were outside of the acceptable limits. These included open work orders for pumps and other miscellaneous areas.

BRRF provided a list of out of date inspections (Attachment M - Mechanical integrity file EPA 1181). **In 2007 and in 2010, the facility conducted audits on the refinery and found no problems with the mechanical integrity program. Everything was listed as "OK." Neither audit identified the 1,518 lines that** were not inspected and mitigated. Also, they did not identify the 253 lines that **were found with less than minimum thickness.** Upon excavation, **57 lines ruptured or leaked and 32 lines were brought above ground**. None of these issues were mentioned as areas of concern in the audits.

In 2011, an additional 209 additional lines were discovered. The pipe inspections will continue until 2014, according to document **EPA1181 (Attachment M), where BRRF will have spent a total of 12.5 million dollars inspecting and repairing the underground pipelines that have no historical records of inspection. Through this process, BRRF is discovering more pipelines that should have been part of the PSI and in the mechanical integrity program for more than 20 years. Yet, the facility had no findings in the mechanical integrity program in the most recent audit.**

There are also some circuits above the ground that are overdue work items and inspections (Attachment M - EPA document 1179 to-EPA1181). Overall, BRRF conducts 80,000 or more inspections on fixed equipment and rotating equipment annually. The facility plans to utilize Risk Based Inspections (RBI), as defined by API standards, in the future for most of the mechanical integrity refinery inspections. Unless there have been corrosion studies, historical inspection data, and a good understanding of all process equipment, one should not utilize RBI under API 580 and API 581. This would also include design specifications, coatings, and materials used for all piping and components in a covered process.

§68.75 – **Management of Change**

The EPA inspection team requested all information summarizing the Management of Change (MOC) #201104100 related to the 2010 HCLA Transient HAZOP Procedure Update. BRRF provided the MOC summary, affected operating procedures prior to and after the changes listed in the MOC recommendations, and the email thread showing the dissemination of the MOC information to the affected operations personnel.

§68.79- **Compliance Audits**

The owner and operator shall certify they have evaluated compliance with the provisions of this subpart at least every three years to verify that procedures and practices developed under this subpart are adequate and are being followed.

BRRF has completed 2 PSM audits for OSHA, and did not complete one compliance audit for RMP. The compliance audits only address OSHA regulations and do not address any concerns

with Part 68. In fact, Part 68 is not even mentioned in the audit table except for the cover letter that was provided. EPA reviewed the PSM audits since the regulations are similar.

The tables in the compliance audits do not address the PSI that is required in accordance with §68.65(d)(1) piping instrument diagrams and materials of construction. Because BRRF does not have proper PSI on underground piping, the PHA cannot be completed or revalidated and revised appropriately. Also, BRRF did not list the continuous incidents that occurred in the last five years that were due to same attributed failure of the same operating procedures. The mechanical integrity (MI) element in the audit fails to find that the MI program was not up to date with all of the underground piping inspections or corrected deficiencies.

The 2007 audit consisted of some findings, but the 2010 was lacking any recommendations or findings except to set up a reminder for computer-based training (CBT) for operators, and how to find MSDS sheets. The 2010 audit listed approximately 200 questions relating to OSHA 1910, which the facility stated addressed the RMP Part 68 in the cover letter. Out of the 200 questions concerning the compliance with the elements of the RMP Part 68, BRRF listed only 8 recommendations and findings on the audit. These recommendations were associated with concerns that they had not closed the last audits. Additionally, the only PHA recommendations that were listed were associated with ensuring that workers are not failing to update elapsed CBT certificates.

The purpose of the compliance audits for Part 68 is to have a complete audit of the facility encompassing all of the elements of the RMP. In order to adequately conduct these audits and prevent accidents, the design and operations must be detailed enough to discover findings and specify responses to make good engineering recommendations in order to prevent incidents. In reviewing the audits, the word **"OK"** is not representative of the actual audit compliance status of the RMP elements observed during this inspection. It did not provide the appropriate technical procedures and practices that are required to be reviewed, developed, and followed by this rule. The compliance audits did not mention the lack of PSI, the failure to conduct underground piping inspections, and the corrected delayed deficiencies. Listing the mechanical integrity program as **"OK"** is not representative of what actually exists at the facility. (Attachment N - Compliance Audits 2007 and 2010).

§68.81 – **Incident Investigation**

Incidents or near misses are an opportunity to capture a mirror image of what has failed, what could fail, how it will fail, and should be utilized to identify hazards when conducting a PHA of a covered process. If they (1) are investigated properly and the root causes are identified correctly utilizing manufacturer's recommendations and accepted, recognized, and good engineering practices, (2) include a good mechanical integrity program, (3) update and refresh process training, and (4) certify and revise operating procedures, accidents may be prevented.

When a review of these incidents is conducted by US EPA, the review assesses whether or not the facility has established a pattern of identifying the proper root causes or lessons learned. We must establish if the company failed to implement management of change procedures, failed to correct deficiencies that may have also triggered a revision of their annual certified operating procedures, or failed to identify the hazard in their process during the revision of a PHA. PHA revision, recognition, and identification of an incident's hazards is one of the most important components that will prevent accidents, and may someday diminish catastrophic injuries and deaths. The following incidents were identified by US EPA at BRRF as having these types of failures. The following incidents listed in Table 7 below were identified by BRRF, but EPA lead inspector also identified other incidents that were also RMP incidents that the contractor investigated.

BRRF provided information on eight incidents that were investigated under §68.81. BRRF claimed all other incidents in the five years prior to the inspection did not result in, and could not reasonably have resulted in, a catastrophic release of a regulated substance. The EPA inspection team requested a selection of the incident reports for further review. BRRF provided summary incident reports, IMPACT incident resolution reports, and supporting documentation for multiple incidents (Refer to Attachment O). Table 7 presents the RMP incidents as identified by BRRF. The additional incidents reviewed by the inspection team which were requested by the lead inspector since she became aware of many other incidents that were not reported as RMP incidents but were investigated by BRRF.

The following incidents listed in the Table 7 below were provided by BRRF as Incidents. Most of them exhibited mechanical integrity failure and operating procedures failure.

Table 7. RMP Incidents as Identified by BRRF

Incident ID	Date	Type	Unit	Title
182019	9/12/2007	>5 years	HCLA	D-115 Condensable Blow down Drum
314938	5/7/2009	Injury/Illness	PCLA-3	CO Exposure from Leak in CO Furnace Combustion Air Expansion Joint
354359	10/17/2009	Spill	Mogas Blending	#1 Red Line Spill
515967	6/21/2011		Alky	Nipple Failure P-105B
584321	3/12/2012	Near Miss	HCLA	H_2S Exposure from Pipe Draining
584944	3/15/2012		HCLA	Personnel H_2S Monitors Sounded Off on Contractors Working on T-101
586786	3/23/2012	Near Miss	HCLA	Person Cuts into Wrong Process Line at HCLA
591873	4/12/2012	Near Miss	PHLA-2	Line in Service Cut at Power former II

BRRF is completing the incident investigations on time and dating them correctly, establishing root causes, and initiating their responses as soon as possible. The EPA and ERG Inspectors obtained a list of all incidents at the facility in the last five years (7/11/2007 to 6/11/2012). The

aforementioned incidents at BRRF were reviewed for compliance with the RMP elements 40 CFR Subpart D, Section 68. Some incidents failed to comply with the elements of the prevention program. These failures include many root causes that could contribute to releases and events, that eventually create injuries and are attributed to failures of the prevention program 40 CFR Section 68. The reporting requirements in §68.42 require that the owner or operator shall include in the five year accident history all accidental releases from a covered processes that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage or an environmental damage (Attachment E).

In Incident #515967, the root cause states that the equipment strategy of piping circuit did not include EDD-21B, Corrosion by acids. The report also states that inspections would not have caught this except that there were numerous repairs on P-105 A. The alternative pump at P-105 B corroded away and BRRF had to switch it back to P-105 A. The area for corrosion should have been expected in low points when acid settles in low bleeder points, as is identified in their own inspection records and in API 571 section 5.1.1.11, Sulfuric Acid Corrosion. The affected units in the caustic treating section are known as areas of vulnerability, according to 5.1.1.11.4, Affected Units.

Incident #314938 was a catastrophic release as defined in § 68.3. Nine people were taken to the hospital. BRRF investigated the incident within 48 hours and documented all the required elements. Event Incident #314938 should have been reported as a catastrophic release from a covered process because nine people were transported to the local hospital. EPA document #0735 relates that the process PCLA-3# (Fluid Catalytic Cracking is a covered process for mixtures of flammables) also released other flammables. This incident should have been reported within six months of its occurrence in an updated RMP.

Table 7 also lists the root cause in the incident investigation in Incident #586786. According to the information reviewed, the operator failed to follow operating procedures (contractors and BRRF).

§68.85 – **Hot Work Permit**

BRRF has an integrated work permit program for work done in the field that includes cold work, non-flame hot work, and hot work (refer to Attachment P). The permits are maintained for seven days. The EPA inspection team observed a hot work permit (Permit # 571370) in the operator's shelter for welding and hand power tool work being done around the PCLA unit. During the PCLA site visit, the work for Permit #571370 was observed (Photograph #10 in Attachment B).

68.87 - **Contractors**

BRRF stated that it has a corporate policy which defines the requirements for the management of contractor selection and evaluation.

Subpart E—Emergency Response
68.90 - **Applicability.**

BRRF is a stationary source with program 3 processes subject to this part and thus required to comply with the requirements of 68.95. BRRF employees will respond to accidental releases of regulated substances.

68.95 - **Emergency Response Program.**

BRRF has developed an Emergency Operations Procedure that was provided for review to the EPA inspector (Craig Haas). This includes procedures for informing the public and local emergency response agencies about accidental releases. First aid and emergency medical treatment is mentioned in the emergency procedure; the hazard specific medical treatment information was listed as required and is accessible to all employees. This document is available on the same share point site with the emergency response plan, and is available to all employees. Procedures for the use, maintenance, inspection, and testing of emergency equipment were provided to EPA for review. Training records for all employees in the fire brigade, and training content was maintained on site. BRRF provides state-of-the-art fire protection, prevention, inspection, hazard mitigation, training and technical support services. As a company, BRRF has responded to many fires, is a back up for most facilities on the river with their barge located for emergency hazardous materials releases, rescues and medical emergencies throughout the oil and petrochemical industry.

Subpart G—Risk Management Plan
68.150 - **Submission**

BRRF has submitted a single RMP which includes the information required in 40 CFR 68.155. The executive summary of the RMP does not currently reflect the reportable releases such as the release that sent 9 people to the hospital. This should have been resubmitted within 6 months of its occurrence on May 7, 2009.

Section (IV)
Inspection Findings and Areas of Concern:

The EPA inspection team provided an exit briefing to BRRF management and key facility and corporate representatives on July 20. The following people listed in the table below were in the closing:

Name	Position	Phone	E-Mail
Steve Blume	Refinery manager EXXONMOBIL	(225) 977-7848	steven.l.blume@exxonmobil.com
Paul Stratford	Chemical Manager EXXONMOBIL	(225) 977-4221	paul.f.stratford@exxonmobil.com
David Banowetz	Refinery Attorney EXXONMOBIL	(225) 977-4321	dave.p.banowetz@exxonmobil.com
Mark A.Chavez	Counsel	(225) 977-4923	mark.a.chavez@exxonmobil.com
Robert Berg	Safety Regulatory Advisor	(225) 977-0193	robert.e.berg@exxonmobil.com
Donna Rea	Environmental	(225) 977-1455	donna.l.rea@exxonmobil.com
Paul Leinweber	Safety and Risk Management	(225) 977-8873	paul.d.leinweber@exxonmobil.com
Brad Butler	United Steel workers safety officer	(225) 977-4723	brad.w.butler@exxonmobil.com
Ryan Wong	Refinery safety engineer EXXONMOBIL	(225) 977-8857	ryan.l.wong@exxonmobil.com
Derek Reese	Environmental supervisor. EXXONMOBIL	(225) 977-0609	j.derek.reese@exxonmobil.com
Johann Song	Technical division manager	(225) 977-7316	johann.song@exxonmobil.com
Andy Loll	Senior Chemical Engineer, ERG	703-633-1645	andrew.loll@erg.com
Dan Roper	Chemical Engineer, ERG	703-633-1694	dan.roper@erg.com
Minerva De Leon	EPA Inspector	281-983-2149	deleon.minerva@epa.gov
Kevin Sweeney	LDEQ Inspector	225-219-3637	Kevin.sweeney@la.gov
Stan Labat	Env.Section Supervisor	(225) 977-7226	stan.n.labat@exxonmobil.com
Curt Riley	Complex Mechanical Div Mgr	(225) 977-4987	curt.b.riley@exxonmobil.com
Ken Miller	Complex Enginnering Manager	(225) 977-1977	ken.a.miller@exxonmobil.com
Lana Venable	Public Govt Affairs	(225) 977-7031	lana.s.venable@exxonmobil.com
Stephanie Cargile	Public Govt. Affairs	(225) 977-7479	stephanie.k.cargile@exxonmobil.com

§68.42 - BRRF reported no accidents in its five-year accident history in the current RMP. Event Incident #314938 should have been reported as an accidental release from a covered process because nine people were transported to the local hospital due to a release from a covered process causing possible exposure (carbon monoxide). EPA document #0735 relates that this process PCLA-#3 (Fluid Catalytic Cracking is a covered process) also released other flammables in LDEQ EDMS report in Attachment Q.

§68.65 - BRRF failed to assure that the equipment was installed correctly to meet the proper PSI.

§68.67(c)(6) - BRRF did not adequately address human factors in the 2010 HCLA HAZOP. The HAZOP failed to address that a minimum number of operators would be required in emergencies to implement emergency procedures.

§68.69 - BRRF failed to follow their own operating procedures, recommended operating procedures, and maintenance operating procedures as listed in their incidents as the root causes in Attachment O.

§68.69(a) - BRRF's shutdown and emergency procedures provided during the inspection are inconsistent in the level of detail provided for each step and several of the steps do not adequately provide the operator with enough detail to complete the step. This could lead to confusion and the inability to complete the procedure, especially in an emergency situation. Examples of this deficiency include the following steps from Procedure HCLA-SD-0404 and Procedure HCLA-EP-0505 (Refer to Attachment R for HCLA procedures provided by BRRF):

- Procedure HCLA-SD-0404 Cut Feed Out of Reactors procedure is a shutdown procedure. Step #1 states "Disable P-102s automatic kick-in". The procedure does not identify what parameters (i.e., process control inputs/outputs) need to be changed and what value or state each parameter needs to be changed to. This step relies on the operator's training and knowledge retention to complete the step (Attachment R, p. 23).

- Procedure HCLA-SD-0404 Step #5 states "Leave the lube oil system on P-102s in service for 1 hour". The procedure does not identify what parameters (i.e., process control inputs/outputs) need to be changed and what value or state each parameter needs to be changed to. This step relies on the operator's training and knowledge retention to complete the step (Attachment R, p. 23).

- Procedure HCLA-EP-0505 Loss of Recycle Feed Pumps P-102 A/B is an emergency procedure. Step #1 states "Reduce R-103 temperatures by 50°F". The procedure does not identify what parameters (i.e., process control inputs/outputs) need to be changed and what value or state each parameter needs to be changed to. This step relies on the operator's training and knowledge retention to complete the step (Attachment R, p. 54).

- Procedure HCLA-EP-0505 Step #12 states "ADJUST fresh feed fractionator as needed to maintain R-101 Control". The procedure does not identify what parameters (i.e., process control inputs/outputs) need to be changed and what value or state each parameter needs to be changed to. This step relies on the operator's training and knowledge retention to complete the step (Attachment R, p. 54).

§68.69(c) - BRRF failed to annually certify the operating procedures within a one year period for the following units listed Table 8.

Table 8. BRRF Process Units with Operating Procedures Not Certified Annually

Year	Process Unit
2009	Alky, LEU 1/2, LEU 3-S, LEU 3-N, PCLA-2, PCLA-3
2010	KDLA, Knox Field – MOGas Blending, Feed MFO Tanks, LEU 4, LEU 5/6, Propane Storage, Gas Collection
2011	HHLA N/S/E, HCLA
2012	Feed MFO Tanks, HHLA N/S/E, HCLA

68.73 – There is a failure of the entire mechanical integrity program, which includes the mechanical integrity program inspections and correcting deficiencies in order to operate in a safe manner. BRRF failed to conduct appropriate checks and inspections to assure that equipment is installed properly and is consistent with design specifications and the manufactures' instructions. BRRF's own incident reports list these areas of concern.

§68.73(d)(4) - BRRF failed to inspect and document underground piping. Also, BRRF failed to have historical records of underground piping inspections, as required.

§68.75(e) - MOC # 201104100, Recommendation S-5075 stated "Consider adding Prerequisite to evacuate non-essential personnel from the unit during startup and to remove any temporary facilities either prior to startup or after the unit is back in normal operation". The MOC Training distribution email indicates the change was made to HCLA-SD-0401. Procedure HCLA-SD-0401 (Rev. 1, 4/11) is a shutdown procedure, not a startup procedure, and does not include a Prerequisite statement to evacuate personnel. Other unit startup procedures provided by BRRF and reviewed during the inspection also do not contain a Prerequisite to evacuate non-essential personnel. The procedures reviewed and potential hazards and consequences from startup of each operation include:

- HCLA-SU-0301 Startup Prerequisite Procedure (Rev. 1, 4/11) – Nitrogen asphyxiation
- HCLA-SU-0310 R-101 Non STARS Catalyst Dryout (Rev. 1, 4/11) –Although nitrogen asphyxiation is not listed as a safety and environmental precaution for this procedure, part of the procedure involves checking for leaks using a nitrogen pressure test. Inherently, nitrogen inhalation and asphyxiation is a potential hazard.
- HCLA-SU-0321 Startup R-103 and R-102 Reactors (Rev. 2, 4/11) – This procedure does not list any safety and environmental precautions but presents a Caution (after Step 14) that overfeeding R-103 too quickly could damage exchanger E-102. Inherently, this could cause a release of hydrocarbons and potential fire or explosion.
- HCLA-SU-0351 STARS Catalyst Operation Piping Dryout (Rev. 2, 4/11) - Nitrogen asphyxiation and release of hydrocarbons and potential fire or explosion resulting from overpressuring the system, brittle fracturing, or system leaks.
- HCLA-SU-0354 Sulfide STARS Catalyst (Rev. 2, 4/11) – Anhydrous ammonia and hydrogen sulfide exposure. Release of hydrocarbons and potential fire or explosion resulting from overpressuring the system.
- HCLA-SU-0355 Prepare STARS Catalyst Reactors and Establish Liquid Flow (Rev. 1, 4/11) – Nitrogen asphyxiation is a hazard due to use of nitrogen for pressure testing the system. An additional hazard is brittle fracture of vessels if safe operating limits are not maintained with catastrophic consequences including a release of hydrocarbons and potential fire or explosion.

BRRF has failed to address concerns with exposure of non-essential personnel in the HCLA area during startup operations as recommended per MOC # 201104100 which could result in the escalation of an incident including personnel injury (Attachment S).

§68.79 - BRRF failed to document and promptly determine an appropriate response to each of the findings of their own corporate compliance audits (Attachment N).

§68.81 - The aforementioned incidents listed in Table 7 all included the failures of 40 CFR Part 68.65, 68.69, 68.73, and 68.79.

§68.81(e) - BRRF did not address and resolve a recommendation, in a timely fashion, to fix a known material incompatibility design flaw that resulted in a leak in LEU 2 Debutanizer overhead condenser heat exchangers E-513 C and D. These were found to be leaking process fluids into the cooling tower system on February 23, 2007 (Attachment T - Incident ID #140888). The brass tube bundles that were leaking were not replaced until 2010.

After the 2007 release occurred, BRRF conducted an incident investigation and determined that the brass tube bundles on the E-513 heat exchangers leaked due to corrosion. The facility had previously replaced heat exchanger tube bundles in similar service on LEU 4 with a stainless steel alloy and found the stainless steel was more suitable for the process service. The incident investigation team recommended the tube bundles on the E-513 exchangers be replaced with stainless steel bundles. Records provided by BRRF show that the E-513 bundles were not replaced until 2010, three years after the initial incident had occurred. BRRF provided the incident summary and resolution documentation for Incident #140888.

§68.168 – BRRF failed to submit in the five-year accident history the information regarding Incident #314938.

§68.195 - BRRF failed to update the RMP submittal with an accidental release within six months of its occurrence regarding Incident #314938. The owner or operator shall submit in the corrections to the RMP regarding the five year accident history covering all accidental releases from a covered process that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage or an environmental damage within 6 months.

Table 8. Areas of Concern Identified During the ExxonMobil Baton Rouge Refinery Inspection

40 CFR Citation	Areas of Concern
68.42	Failure to report a catastrophic release and to update the RMP as required
68.65 (a),(d)	BRRF did not establish all the information pertaining to the equipment in the process including piping and underground piping diagrams and instrument diagrams
68.67 (c)	BRRF did not adequately address human factors in the 2010 HCLA HAZOP. The HAZOP failed to address that a minimum number of operators would be required in emergencies to implement emergency procedures

Table 8. Areas of Concern Identified During the ExxonMobil Baton Rouge Refinery Inspection

40 CFR Citation	Areas of Concern
68.69(a),(c)	BRRF's shutdown and emergency procedures provided during the inspection are inconsistent in the level of detail provided for each step. Several of the steps do not adequately provide the operator with enough detail to complete the step. BRRF failed to annually certify operating procedures for several RMP-covered processes within a one year period
68.73 (d)	Failure to inspect underground piping , failure to have inspection records, and failure to correct deficiencies as required in the Prevention program 3
68.75(e)	BRRF has failed to address concerns with exposure of non-essential personnel in the HCLA (hydrocracker) area during startup operations as recommended per MOC # 201104100 which could result in the escalation of an incident including personnel injury.
68.79 (d)	Failure to document and promptly determine an appropriate response to each of the findings of their own corporate compliance audits (listed in the ExxonMobil external assessment attachment N).
68.81(e)	BRRF did not address and resolve in a timely fashion a recommendation to fix a known material incompatibility design flaw that resulted in a leak. LEU 2 Debutanizer overhead condenser heat exchangers E-513 C and D were found to be leaking process fluids into the cooling tower system on February 23, 2007 (Incident ID 140888) and the leaking tube bundles were not replaced until 2010.
68.168	BRRF failed to submit as required in 68.42
68.195 (a)	Failure to correct and update the RMP with new accident history as required

Attachment A – RMP INSPECTION

Attachment B – PHOTO LOG

Attachment C – OIMS/RMP SUMMARY

Attachment D – LETTER FROM EXXONMOBIL

Attachment E – EVENT INCIDENT INFORMATION FOR INCIDENT #314938

Attachment F – HCLA AND PCLA OPERATING ENVELOPE LIMITS

Attachment G – BRRF MAXIMUM INTENDED INVENTORY

Attachment H – D-115 AND E-103 P&ID'S

Attachment I – HAZOP GUIDE AND HCLA AND PCLA HAZOP SUMMARY REPORTS

Attachment J – BRRF RMP-COVERED UNIT OPERATION SSEP ANNUAL CERTIFICATIONS

Attachment K – TRAINING RECORDS

Attachment L – OIMS SYSTEM

Attachment M – MECHANICAL INTEGRITY FILE ,OUT-OF-DATE INSPECTIONS

Attachment N – COMPLIANCE AUDITS FOR 2007 AND 2010

Attachment O – BRRF INCIDENT INVESTIGATION SUMMARY AND SUPPORTING DOCUMENTATION

Attachment P – BRRF HOT WORK PERMIT

Attachment Q – LDEQ EDMS REPORT – EPA DOCUMENT #0735

Attachment R – HCLA PROCEDURES

Attachment S – MOC #201104100 SUMMARIES AND RESOLUTION DOCUMENTATION

Attachment T – INCIDENT #140888 SUMMARY AND RESOLUTION DOCUMENTATION

Section A – Management [68.15]

Management system developed and implemented as provided in 40 CFR 68.15? ■S
☐M ☐U ☐N/A

Comments:

Has the owner or operator:

1. Developed a management system to oversee the implementation of the risk management program elements? [68.15(a)]	■Y ☐N ☐ N/A
2. Assigned a qualified person or position that has the overall responsibility for the development, implementation, and integration of the risk management program elements? [68.15(b)]	■Y ☐N ☐ N/A
3. Documented other persons responsible for implementing individual requirements of the risk management program and defined the lines of authority through an organization chart or similar document? [68.15(c)]	■Y ☐N ☐ N/A

Section B: Hazard Assessment [68.20-68.42]

Hazard assessment conducted and documented as provided in 40 CFR 68.20-68.42? ■S
☐M ☐U ☐N/A

Comments:

Hazard Assessment: Offsite consequence analysis parameters [68.22]

1. Used the following endpoints for offsite consequence analysis for a worst-case scenario: [68.22(a)] ☐ For toxics: the endpoints provided in Appendix A of 40 CFR Part 68? [68.22(a)(1)] ☐ For flammables: an explosion resulting in an overpressure of 1 psi? [68.22(a)(2)(i)]; or ☐ For flammables: a fire resulting in a radiant heat/exposure of 5 kw/m^2 for 40 seconds? [68.22(a)(2)(ii)] ☐ For flammables: a concentration resulting in a lower flammability limit, as provided in NFPA documents or other generally recognized sources? [68.22(a)(2)(iii)]	■Y ☐N ☐ N/A

RMP Program Level 3 Process Checklist	Facility Name: ExxonMobil Baton Rouge Refinery		
2. Used the following endpoints for offsite consequence analysis for an alternative release scenario: [68.22(a)] ☐ For toxics: the endpoints provided in Appendix A of 40 CFR Part 68? [68.22(a)(1)] ☐ For flammables: an explosion resulting in an overpressure of 1 psi? [68.22(a)(2)(i)] ☐ For flammables: a fire resulting in a radiant heat/exposure of 5 kw/m^2 for 40 seconds? [68.22(a)(2)(ii)] ☐ For flammables: a concentration resulting in a lower flammability limit, as provided in NFPA documents or other generally recognized sources? [68.22(a)(2)(iii)]	■Y N/A	☐N	☐
3. Used appropriate wind speeds and stability classes for the release analysis? [68.22(b)]	■Y N/A	☐N	☐
4. Used appropriate ambient temperature and humidity values for the release analysis? [68.22(c)]	■Y N/A	☐N	☐
5. Used appropriate values for the height of the release for the release analysis? [68.22(d)]	■Y N/A	☐N	☐
6. Used appropriate surface roughness values for the release analysis? [68.22(e)]	■Y N/A	☐N	☐
7. Do tables and models, used for dispersion analysis of toxic substances, appropriately account for dense or neutrally buoyant gases? [68.22(f)]	■Y N/A	☐N	☐
8. Were liquids, other than gases liquefied by refrigeration only, considered to be released at the highest daily maximum temperature, based on data for the previous three years appropriate for a stationary source, or at process temperature, whichever is higher? [68.22(g)]	☐Y N/A	☐N	■
Hazard Assessment: Worst-case release scenario analysis [68.25]			
9. Analyzed and reported in the RMP one worst-case release scenario estimated to create the greatest distance to an endpoint resulting from an accidental release of a regulated toxic substance from covered processes under worst-case conditions? [68.25(a)(2)(i)]	☐Y N/A	☐N	■
10. Analyzed and reported in the RMP one worst-case release scenario estimated to create the greatest distance to an endpoint resulting from an accidental release of a regulated flammable substance from covered processes under worst-case conditions? [68.25(a)(2)(ii)]	■Y N/A	☐N	☐

RMP Program Level 3 Process Checklist	Facility Name: ExxonMobil Baton Rouge Refinery

11. Analyzed and reported in the RMP additional worst-case release scenarios for a hazard class if the worst-case release from another covered process at the stationary source potentially affects public receptors different from those potentially affected by the worst-case release scenario developed under 68.25(a)(2)(i) or 68.25(a)(2)(ii)? [68.25(a)(2)(iii)]	■Y ☐N ☐ N/A
12. Has the owner or operator determined the worst-case release quantity to be the greater of the following: [68.25(b)] ☐ If released from a vessel, the greatest amount held in a single vessel, taking into account administrative controls that limit the maximum quantity? [68.25(b)(1)] ☐ If released from a pipe, the greatest amount held in the pipe, taking into account administrative controls that limit the maximum quantity? [68.25(b)(2)]	■Y ☐N ☐ N/A
13.a. Has the owner or operator for toxic substances that are normally gases at ambient temperature and handled as a gas or liquid under pressure:	
13.a.(1) Assumed the whole quantity in the vessel or pipe would be released as a gas over 10 minutes? [68.25(c)(1)]	☐Y ☐N ■ N/A
13.a.(2) Assumed the release rate to be the total quantity divided by 10, if there are no passive mitigation systems in place? [68.25(c)(1)]	☐Y ☐N ■ N/A
13.b. Has the owner or operator for toxic gases handled as refrigerated liquids at ambient pressure:	
13.b.(1) Assumed the substance would be released as a gas in 10 minutes, if not contained by passive mitigation systems or if the contained pool would have a depth of 1 cm or less? [68.25(c)(2)(i)]	☐Y ☐N ■ N/A
13.b.(2) If released substance would be contained by passive mitigation systems in a pool with a depth > 1 cm; ☐ Assumed the quantity in the vessel or pipe (as determined per 68.25(b)) would be spilled instantaneously to form a liquid pool? [68.25(c)(2)(ii)] ☐ Calculated the volatility rate at the boiling point of the substance and at the conditions specified in 68.25(d)? [68.25(c)(2)(ii)]	☐Y ☐N ■ N/A
13.c. Has the owner or operator for toxic substances that are normally liquids at ambient temperature:	
13.c.(1) Assumed the quantity in the vessel or pipe would be spilled instantaneously to form a liquid pool? [68.25(d)(1)]	☐Y ☐N ■ N/A

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13.c.(2)	Determined the surface area of the pool by assuming that the liquid spreads to 1 cm deep, if there is no passive mitigation system in place that would serve to contain the spill and limit the surface area, or if passive mitigation is in place, was the surface area of the contained liquid used to calculate the volatilization rate? [68.25(d)(1)(i)]	☐Y ☐N ■N/A
13.c.(3)	Taken into account the actual surface characteristics, if the release would occur onto a surface that is not paved or smooth? [68.25(d)(1)(ii)]	☐Y ☐N ■N/A
13.c.(4)	Determined the volatilization rate by accounting for the highest daily maximum temperature in the past three years, the temperature of the substance in the vessel, and the concentration of the substance if the liquid spilled is a mixture or solution? [68.25(d)(2)]	☐Y ☐N ■N/A
13.c.(5)	Determined the rate of release to air from the volatilization rate of the liquid pool? [68.25(d)(3)]	☐Y ☐N ■N/A
13.c.(6)	Determined the rate of release to air by using the methodology in the RMP Offsite Consequence Analysis Guidance, any other publicly available techniques that account for the modeling conditions and are recognized by industry as applicable as part of current practices, or proprietary models that account for the modeling conditions may be used provided the owner or operator allows the implementing agency access to the model and describes model features and differences from publicly available models to local emergency planners upon request? [68.25(d)(3)] What modeling technique did the owner or operator use? [68.25(g)] _____	☐Y ☐N ■N/A
13.d.	Has the owner or operator for <u>flammables</u>:	
13.d.(1)	Assumed the quantity in a vessel(s) of flammable gas held as a gas or liquid under pressure or refrigerated gas released to an undiked area vaporizes resulting in a vapor cloud explosion? [68.25(e)]	■Y ☐N ☐ N/A
13.d.(2)	For refrigerated gas released to a contained area or liquids released below their atmospheric boiling point, assumed the quantity volatilized in 10 minutes results in a vapor cloud? [68.25(f)]	■Y ☐N ☐ N/A
13.d.(3)	Assumed a yield factor of 10% of the available energy is released in the explosion for determining the distance to the explosion endpoint, if the model used is based on TNT-equivalent methods? [68.25(e)]	■Y ☐N ☐ N/A

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14. Used the parameters defined in 68.22 to determine distance to the endpoints? [68.25(g)]	■Y ☐N ☐ N/A
15. Determined the rate of release to air by using the methodology in the RMP Offsite Consequence Analysis Guidance, any other publicly available techniques that account for the modeling conditions and are recognized by industry as applicable as part of current practices, or proprietary models that account for the modeling conditions may be used provided the owner or operator allows the implementing agency access to the model and describes model features and differences from publicly available models to local emergency planners upon request? [68.25(g)] What modeling technique did the owner or operator use? [68.25(g)] _____	■Y ☐N ☐ N/A
16. Ensured that the passive mitigation system, if considered, is capable of withstanding the release event triggering the scenario and will still function as intended? [68.25(h)]	■Y ☐N ☐ N/A
17. Considered also the following factors in selecting the worst-case release scenarios: [68.25(i)] ☐ Smaller quantities handled at higher process temperature or pressure? [68.25(i)(1)] ☐ Proximity to the boundary of the stationary source? [68.25(i)(2)]	☐■Y ☐N ☐ N/A
Hazard Assessment: Alternative release scenario analysis [68.28]	
18. Identified and analyzed at least one alternative release scenario for each regulated toxic substance held in a covered process(es) and at least one alternative release scenario to represent all flammable substances held in covered processes? [68.28(a)]	☐■Y ☐N ☐ N/A
19. Selected a scenario: [68.28(b)] ☐ That is more likely to occur than the worst-case release scenario under 68.25? [68.28(b)(1)(i)] ☐ That will reach an endpoint off-site, unless no such scenario exists? [68.28(b)(1)(ii)]	■Y ☐N ☐ N/A

20. Considered release scenarios which included, but are not limited to, the following: [68.28(b)(2)] ☐ Transfer hose releases due to splits or sudden hose uncoupling? [68.28(b)(2)(i)] ☐ Process piping releases from failures at flanges, joints, welds, valves and valve seals, and drains or bleeds? [68.28(b)(2)(ii)] ☐ Process vessel or pump releases due to cracks, seal failure, or drain, bleed, or plug failure? [68.28(b)(2)(iii)] ☐ Vessel overfilling and spill, or overpressurization and venting through relief valves or rupture disks? [68.28(b)(2)(iv)] ☐ Shipping container mishandling and breakage or puncturing leading to a spill? [68.28(b)(2)(v)]	■Y ☐N ☐ N/A
21. Used the parameters defined in 68.22 to determine distance to the endpoints? [68.28(c)]	■Y ☐N ☐ N/A
22. Determined the rate of release to air by using the methodology in the RMP Offsite Consequence Analysis Guidance, any other publicly available techniques that account for the modeling conditions and are recognized by industry as applicable as part of current practices, or proprietary models that account for the modeling conditions may be used provided the owner or operator allows the implementing agency access to the model and describes model features and differences from publicly available models to local emergency planners upon request? [68.28(c)] What modeling technique did the owner or operator use? [68.25(g)] _____	■Y ☐N ☐ N/A
23. Ensured that the passive and active mitigation systems, if considered, are capable of withstanding the release event triggering the scenario and will be functional? [68.28(d)]	■Y ☐N ☐ N/A
24. Considered the following factors in selecting the alternative release scenarios: [68.28(e)] ☐ The five-year accident history provided in 68.42? [68.28(e)(1)] ☐ Failure scenarios identified under 68.50? [68.28(e)(2)]	■Y ☐N ☐ N/A

Hazard Assessment: Defining off-site impacts–Population [68.30]

25. Estimated population that would be included in the distance to the endpoint in the RMP based on a circle with the point of release at the center? [68.30(a)]	■Y ☐N ☐ N/A
26. Identified the presence of institutions, parks and recreational areas, major commercial, office, and industrial buildings in the RMP? [68.30(b)]	■Y ☐N ☐ N/A

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27. Used most recent Census data, or other updated information to estimate the population? [68.30(c)]	■Y ☐N ☐ N/A
28. Estimated the population to two significant digits? [68.30(d)]	■Y ☐N ☐ N/A
Hazard Assessment: Defining off-site impacts–Environment [68.33]	
29. Identified environmental receptors that would be included in the distance to the endpoint based on a circle with the point of release at the center? [68.33(a)]	■Y ☐N ☐ N/A
30. Relied on information provided on local U.S.G.S. maps, or on any data source containing U.S.G.S. data to identify environmental receptors? [Source may have used LandView to obtain information] [68.33(b)]	■Y ☐N ☐ N/A
Hazard Assessment: Review and update [68.36]	
31. Reviewed and updated the off-site consequence analyses at least once every five years? [68.36(a)]	■Y ☐N ☐ N/A
32. Completed a revised analysis and submit a revised RMP within six months of a change in processes, quantities stored or handled, or any other aspect that might reasonably be expected to increase or decrease the distance to the endpoint by a factor of two or more? [68.36(b)]	■Y ☐N ☐ N/A
Hazard Assessment: Documentation [68.39]	
33. For worst-case scenarios: a description of the vessel or pipeline and substance selected, assumptions and parameters used, the rationale for selection, and anticipated effect of the administrative controls and passive mitigation on the release quantity and rate? [68.39(a)]	■Y ☐N ☐ N/A
34. For alternative release scenarios: a description of the scenarios identified, assumptions and parameters used, the rationale for the selection of specific scenarios, and anticipated effect of the administrative controls and mitigation on the release quantity and rate? [68.39(b)]	■Y ☐N ☐ N/A
35. Documentation of estimated quantity released, release rate, and duration of release? [68.39(c)]	■Y ☐N ☐ N/A
36. Methodology used to determine distance to endpoints? [68.39(d)]	■Y ☐N ☐ N/A
37. Data used to estimate population and environmental receptors potentially affected? [68.39(e)]	■Y ☐N ☐ N/A

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Hazard Assessment: Five-year accident history [68.42]

38. Has the owner or operator included all accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage? [68.42(a)] No the facility failed to report an incident where 9 workers were taken to the hospital for exposure with CO	☐Y ■N ☐ N/A
39. Has the owner or operator reported the following information for each accidental release: [68.42(b)] ☐ Date, time, and approximate duration of the release? [68.42(b)(1)] ☐ Chemical(s) released? [68.42(b)(2)] ☐ Estimated quantity released in pounds and percentage weight in a mixture (toxics)? [68.42(b)(3)] ☐ NAICS code for the process? [68.42(b)(4)] ☐ The type of release event and its source? [68.42(b)(5)] ☐ Weather conditions (if known)? [68.42(b)(6)] ☐ On-site impacts? [68.42(b)(7)] ☐ Known offsite impacts? [68.42(b)(8)] ☐ Initiating event and contributing factors (if known)? [68.42(b)(9)] ☐ Whether offsite responders were notified (if known)? [68.42(b)(10)] ☐ Operational or process changes that resulted from investigation of the release? [68.42(b)(11)]	■Y ☐N ☐ N/A

Section C: Prevention Program

Implemented the Program 3 prevention requirements as provided in 40 CFR 68.65 - 68.87? ☐S
■M ☐U ☐N/A

Comments:

RMP Program Level 3 Process Checklist	Facility Name: ExxonMobil Baton Rouge Refinery

Prevention Program- Safety information [68.65]

1. Has the owner or operator compiled written process safety information, which includes information pertaining to the hazards of the regulated substances used or produced by the process, information pertaining to the technology of the process, and information pertaining to the equipment in the process, before conducting any process hazard analysis required by the rule? [68.65(a)] Does the process safety information contain the following for hazards of the substances: [68.65(b)] ☑ Material Safety Data Sheets (MSDS) that meet the requirements of the OSHA Hazard Communication Standard [29 CFR 1910.1200(g)]? [68.48(a)(1)] ☑ Toxicity information? [68.65(b)(1)] ☑ Permissible exposure limits? [68.65(b)(2)] ☑ Physical data? [68.65(b)(3)] ☑ Reactivity data? [68.65(b)(4)] ☑ Corrosivity data? [68.65(b)(5)] ☑ Thermal and chemical stability data? [68.65(b)(6)] ☑ Hazardous effects of inadvertent mixing of materials that could foreseeably occur? [68.65(b)(7)]	☑ Y ☐N ☐ N/A
2. Has the owner documented information pertaining to technology of the process? ☑ A block flow diagram or simplified process flow diagram? [68.65(c)(1)(i)] ☑ Process chemistry? [68.65(c)(1)(ii)] ☑ Maximum intended inventory? [68.65(c)(1)(iii)] ☑ Safe upper and lower limits for such items as temperatures, pressures, flows, or compositions? [68.65(c)(1)(iv)] ☑ An evaluation of the consequences of deviation? [68.65(c)(1)(iv)]	☑Y ☐N ☐ N/A

RMP Program Level 3 Process Checklist	Facility Name: ExxonMobil Baton Rouge Refinery		
3. Does the process safety information contain the following for the equipment in the process: [68.65(d)(1)] ☑ Materials of construction? 68.65(d)(1)(i)] ☑ Piping and instrumentation diagrams [68.65(d)(1)(ii)] ☑ Electrical classification? [68.65(d)(1)(iii)] ☑ Relief system design and design basis? [68.65(d)(1)(iv)] ☑ Ventilation system design? [68.65(d)(1)(v)] ☑ Design codes and standards employed? [68.65(d)(1)(vi)] ☑ Material and energy balances for processes built after June 21, 1999? [68.65(d)(1)(vii)] ☑ Safety systems? [68.65(d)(1)(viii)]	☑Y N/A	☐N	☐
4. Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices? [68.65(d)(2)]	☑Y N/A	☐N	☐
5. Has the owner or operator determined and documented that existing equipment, designed and constructed in accordance with codes, standards, or practices that are no longer in general use, is designed, maintained, inspected, tested, and operating in a safe manner? [68.65(d)(3)]	☑Y N/A	☐N	☐
Prevention Program- Process Hazard Analysis [68.67]			
6. Has the owner or operator performed an initial process hazard analysis (PHA), and has this analysis identified, evaluated, and controlled the hazards involved in the process? [68.67(a)]	☑Y N/A	☐N	☐
7. Has the owner or operator determined and documented the priority order for conducting PHAs, and was it based on an appropriate rationale? [68.67(a)]	☑Y N/A	☐N	☐
8. Has the owner used one or more of the following technologies to conduct process PHA: [68.67(b)] ☐ What-if? [68.67(b)(1)] ☐ Checklist? [68.67(b)(2)] ☐ What-if/Checklist? [68.67(b)(3)] ☑ Hazard and Operability Study (HAZOP) [68.67(b)(4)] ☐ Failure Mode and Effects Analysis (FMEA) [68.67(b)(5)] ☐ Fault Tree Analysis? [68.67(b)(6)] ☐ An appropriate equivalent methodology? [68.67(b)(7)]	☑Y N/A	☐N	☐

Comment [MSOffice1]: Is this a Yes?

RMP Program Level 3 Process Checklist	Facility Name: ExxonMobil Baton Rouge Refinery		
9. Did the PHA address: ☑ The hazards of the process? [68.67(c)(1)] ☑ Identification of any incident that had a likely potential for catastrophic consequences? [68.67(c)(2)] ☑ Engineering and administrative controls applicable to hazards and interrelationships?[68.67(c)(3)] ☑ Consequences of failure of engineering and administrative controls? [68.67(c)(4)] ☑ Stationary source siting? [68.67(c)(5)] ☐ Human factors? [68.67(c)(6)] ☑ An evaluation of a range of the possible safety and health effects of failure of controls? [68.67(c)(7)]	☐Y	☑N	☐ N/A
10. Was the PHA performed by a team with expertise in engineering and process operations and did the team include appropriate personnel? [68.67(d)]	☑Y	☐N	☐ N/A
11. Has the owner or operator established a system to promptly address the team's findings and recommendations; assured that the recommendations are resolved in a timely manner and documented; documented what actions are to be taken; completed actions as soon as possible; developed a written schedule of when these actions are to be completed; and communicated the actions to operating, maintenance, and other employees whose work assignments are in the process and who may be affected by the recommendations? [68.67(e)]	☑Y	☐N	☐ N/A
12. Has the PHA been updated and revalidated by a team every five years after the completion of the initial PHA to assure that the PHA is consistent with the current process? [68.67(f)]	☑Y	☐N	☐ N/A
13. Has the owner or operator retained PHAs and updates or revalidations for each process covered, as well as the resolution of recommendations for the life of the process? [68.67(g)]	☑Y	☐N	☐ N/A
Prevention Program- Operating procedures [68.69]			
14. Has the owner or operator developed and implemented written operating procedures that provide instructions or steps for conducting activities associated with each covered process consistent with the safety information? [68.69(a)]	☑Y	☐N	☐ N/A

Comment [MSOffice2]: Is this a Yes?

RMP Program Level 3 Process Checklist	Facility Name: ExxonMobil Baton Rouge Refinery

15 Do the procedures address the following: [68.69(a)] Steps for each operating phase: [68.69(a)(1)] ☑ Initial Startup? [68.69(a)(1)(i)] ☑ Normal operations? [68.69(a)(1)(ii)] ☑ Temporary operations? [68.69((a)(1)(iii)] ☑ Emergency shutdown including the conditions under which emergency shutdown is required, and the assignment of shutdown responsibility to qualified operators to ensure that emergency shutdown is executed in a safe and timely manner? [68.69(a)(1)(iv)] ☑ Emergency operations? [68.69(a)(1)(v)] ☑ Normal shutdown? [68.68(a)(1)(vi)] ☑ Startup following a turnaround, or after emergency shutdown? [68.69(a)(1)(vii)] Operating limits: [68.69(a)(2)] ☑ Consequences of deviations [68.69(a)(2)(i)] ☑ Steps required to correct or avoid deviation? [68.69(a)(2)(ii)] Safety and health considerations: [68.69(a)(3)] ☑ Properties of, and physical hazards presented by, the chemicals used in the process [68.69(a)(3)(i)] ☑ Precautions necessary to prevent exposure, including engineering controls, administrative controls, and personal protective equipment? [68.69(a)(3)(ii)] ☑ Control measures to be taken if physical contact or airborne exposure occurs? [68.69(a)(3)(iii)] ☑ Quality control for raw materials and control of hazardous chemical inventory levels? [68.69(a)(3)(iv)] ☑ Any special or unique hazards? [68.69(a)(3)(v)] ☑ Safety systems and their functions? [68.69(a)(4)]	☑Y ☐N ☐ N/A
16. Are operating procedures readily accessible to employees who are involved in a process? [68.69(b)]	☑Y ☐N ☐ N/A
17. Has the owner or operator certified annually that the operating procedures are current and accurate and that procedures have been reviewed as often as necessary? [68.69(c)] BRRF certifies all operating procedures by May 26 of each year. Some process unit certifications are not completed within 365 days of the previous year's certification.	☐Y ☑N ☐ N/A

RMP Program Level 3 Process Checklist	Facility Name: ExxonMobil Baton Rouge Refinery
18. Has the owner or operator developed and implemented safe work practices to provide for the control of hazards during specific operations, such as lockout/tagout? [68.69(d)]	☑Y ☐N ☐ N/A
Prevention Program - Training [68.71.	
19 Has each employee involved in operating a process, and each employee before being involved in operating a newly assigned process, been initially trained in an overview of the process and in the operating procedures? [68.71(a)(1)]	■Y ☐N ☐ N/A
20. Did initial training include emphasis on safety and health hazards, emergency operations including shutdown, and safe work practices applicable to the employee's job tasks? [68.71(a)(1)]	■Y ☐N ☐ N/A
21. In lieu of initial training for those employees already involved in operating a process on June 21, 1999, an owner or operator may certify in writing that the employee has the required knowledge, skills, and abilities to safely carry out the duties and responsibilities as specified in the operating procedures [68.71(a)(2)]	■Y ☐N ☐ N/A
22. Has refresher training been provided at least every three years, or more often if necessary, to each employee involved in operating a process to assure that the employee understands and adheres to the current operating procedures of the process? [68.71(b)]	■Y ☐N ☐ N/A
23, Has owner or operator ascertained and documented in record that each employee involved in operating a process has received and understood the training required? [68.71(c)]	■☐Y ☐N ☐ N/A
24. Does the prepared record contain the identity of the employee, the date of the training, and the means used to verify that the employee understood the training? [68.71(c)]	■Y ☐N ☐ N/A
Prevention Program - Mechanical Integrity [68.73]	
25. Has the owner or operator established and implemented written procedures to maintain the on-going integrity of the process equipment listed in 68.73(a)? [68.73(b)]	■Y ☐N ☐ N/A
26. Has the owner or operator trained each employee involved in maintaining the on-going integrity of process equipment? [68.73(c)]	☐Y ☐N ☐ N■/A
27. Performed inspections and tests on process equipment? [68.73(d)(1)]	■Y ☐N ☐ N/A
28. Followed recognized and generally accepted good engineering practices for inspections and testing procedures? [68.73(d)(2)]	■Y ☐N ☐ N/A

Comment [MSOffice3]: Is this a Yes?

Comment [MSOffice4]: Is this a Yes?

RMP Program Level 3 Process Checklist	Facility Name: ExxonMobil Baton Rouge Refinery
29. Ensured the frequency of inspections and tests of process equipment is consistent with applicable manufacturers' recommendations, good engineering practices, and prior operating experience? [68.73(d)(3)]	☐Y ■N ☐ N/A
30. Documented each inspection and test that had been performed on process equipment, which identifies the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test? [68.73(d)(4)]	☐Y ☐N ☐ N/A■
31. Corrected deficiencies in equipment that were outside acceptable limits defined by the process safety information before further use or in a safe and timely manner when necessary means were taken to assure safe operation? [68.73(e)]	☐Y ■N ☐ N/A
32. Assured that equipment as it was fabricated is suitable for the process application for which it will be used in the construction of new plants and equipment? [68.73(f)(1)]	☐Y ■☐N ☐ N/A
33. Performed appropriate checks and inspections to assure that equipment was installed properly and consistent with design specifications and the manufacturer's instructions? [68.73(f)(2)]	☐Y ■N ☐ N/A
34. Assured that maintenance materials, spare parts and equipment were suitable for the process application for which they would be used? [68.73(f)(3)]	☐Y ☐■N ☐ N/A
Prevention Program - Management Of Change [68.75]	
35. Has the owner or operator established and implemented written procedures to manage changes to process chemicals, technology, equipment, and procedures, and changes to stationary sources that affect a covered process? [68.75(a)]	☑Y ☐N ☐ N/A
36. Do procedures assure that the following considerations are addressed prior to any change: [68.75(b)] ■ The technical basis for the proposed change? [68.75(b)(1)] ■ Impact of change on safety and health? [68.75(b)(2)] ■ Modifications to operating procedures? [68.75(b)(3)] ■ Necessary time period for the change? [68.75(b)(4)] ■ Authorization requirements for the proposed change? [68.75(b)(5)]	☑Y ☐N ☐ N/A
37. Were employees, involved in operating a process and maintenance, and contract employees, whose job tasks would be affected by a change in the process, informed of, and trained in, the change prior to start-up of the process or affected parts of the process? [68.75(c)]	☑Y ☐N ☐ N/A

38. If a change resulted in a change in the process safety information, was such information updated accordingly? [68.75(d)]	☑Y N/A	☐N	☐
39. If a change resulted in a change in the operating procedures or practices, had such procedures or practices been updated accordingly? [68.75(e)]	☐Y N/A	☑N	☐
Prevention Program - Pre-startup Safety Review [68.77]			
40. If the facility installed a new stationary source, or significantly modified an existing source, (as discussed at 68.77(a)) did it perform a pre-startup safety review prior to the introduction of a regulated substance to a process to confirm: [68.77(b)] ☐ Construction and equipment was in accordance with design specifications? [68.77(b)(1)] ☐ Safety, operating, maintenance, and emergency procedures were in place and were adequate? [68.77(b)(2)] ☐ For new stationary sources, a process hazard analysis had been performed and recommendations had been resolved or implemented before startup? [68.77(b)(3)] ☐ Modified stationary sources meet the requirements contained in management of change? [68.77(b)(3)] ☐ Training of each employee involved in operating a process had been completed? [68.77(b)(4)]	■Y N/A	☐N	☐
Prevention Program - Compliance audits [68.79]			
41. Has the owner or operator certified that the stationary source has evaluated compliance with the provisions of the prevention program at least every three years to verify that the developed procedures and practices are adequate and being followed? [68.79(a)]	☐Y N/A	■N	☐
42. Has the audit been conducted by at least one person knowledgeable in the process? [68.79(b)]	■Y N/A	☐N	☐
43. Are the audit findings documented in a report? [68.79(c)]	■Y N/A	☐N	☐
44. Has the owner or operator promptly determined and documented an appropriate response to each of the findings of the audit and documented that deficiencies had been corrected? [68.79(d)]	☐Y N/A	■N	☐
45. Has the owner or operator retained the two most recent compliance reports? [68.79(e)]	■Y N/A	☐N	☐

RMP Program Level 3 Process Checklist	Facility Name: ExxonMobil Baton Rouge Refinery		
Prevention Program - Incident investigation [68.81]			
46. Has the owner or operator investigated each incident that resulted in, or could reasonably have resulted in a catastrophic release of a regulated substance? [68.81(a)]	☑Y N/A	☐N	☐
47. Were all incident investigations initiated not later than 48 hours following the incident? [68.81(b)]	☑Y N/A	☐N	☐
48. Was an accident investigation team established and did it consist of at least one person knowledgeable in the process involved, including a contract employee if the incident involved work of a contractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident? [68.81(c)]	☑Y N/A	☐N	☐
49. Was a report prepared at the conclusion of every investigation? [68.81(d)]	☑Y N/A	☐N	☐
50. Does every report include: [68.81(d)] ☑ Date of incident? [68.81(d)(1)] ☑ Date investigation began? [68.81(d)(2)] ☑ A description of the incident? [68.81(d)(3)] ☑ The factors that contributed to the incident? [68.81(d)(4)] ☑ Any recommendations resulting from the investigation? [68.81(d)(5)]	☑Y N/A	☐N	☐
51. Has the owner or operator established a system to address and resolve the report findings and recommendations, and are the resolutions and corrective actions documented? [68.81(e)] **§68.81(e)** - BRRF did not address and resolve a recommendation, in a timely fashion, to fix a known material incompatibility design flaw that resulted in a leak.	☑Y N/A	■N	☐
52. Was the report reviewed with all affected personnel whose job tasks are relevant to the incident findings including contract employees where applicable? [68.81(f)]	☑Y N/A	☐N	☐
53. Has the owner or operator retained incident investigation reports for at least five years? [68.81(g)]	☑Y N/A	☐N	☐
Section D - Employee Participation [68.83]			
1. Has the owner or operator developed a written plan of action regarding the implementation of the employee participation required by this section? [68.83(a)]	■Y N/A	☐N	☐

Comment [MSOffice5]: This is checked Yes and No.

2.	Has the owner or operator consulted with employees and their representatives on the conduct and development of process hazards analyses and on the development of the other elements of process safety management in chemical accident prevention provisions? [68.83(b)]	■Y N/A	☐N	☐
3.	Has the owner or operator provided to employees and their representatives access to process hazards analyses and to all other information required to be developed under the chemical accident prevention rule? [68.83(c)]	■Y N/A	☐N	☐

Section E - Hot Work Permit [68.85]

1.	Has the owner or operator issued a hot work permit for each hot work operation conducted on or near a covered process? [68.85(a)]	☑Y N/A	☐N	☐
2.	Does the permit document that the fire prevention and protection requirements in 29CFR 1910.252(a) have been implemented prior to beginning the hot work operations? [68.85(b)]	☑Y N/A	☐N	☐
3.	Does the permit indicate the date(s) authorized for hot work and the object(s) upon which hot work is to be performed? [68.85(b]	☑Y N/A	☐N	☐
4.	Are the permits being kept on file until completion of the hot work operations? [68.85(b)]	☑Y N/A	☐N	☐

Section F - Contractors [68.87]

1.	Has the owner or operator obtained and evaluated information regarding the contract owner or operator's safety performance and programs when selecting a contractor? [68.87(b)(1)]	■Y N/A	☐N	☐
2.	Informed contract owner or operator of the known potential fire, explosion, or toxic release hazards related to the contractor's work and the process? [68.87(b)(2)]	■Y N/A	☐N	☐
3.	Explained to the contract owner or operator the applicable provisions of the emergency response or the emergency action program? [68.87(b)(3)]	■Y N/A	☐N	☐
4.	Developed and implemented safe work practices consistent with §68.69(d), to control the entrance, presence, and exit of the contract owner or operator and contract employees in the covered process areas? [68.87(b)(4)]	■Y N/A	☐N	☐
5.	Periodically evaluated the performance of the contract owner or operator in fulfilling their obligations (as described at 68.87(c)(1) – (c)(5))? [68.87(b)(5)]	■Y N/A	☐N	☐

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Section G - Emergency Response [68.90 - 68.95]

Developed and implemented an emergency response program as provided in 40 CFR 68.90-68.95? ☐S
☐M ☐U ☐N/A

Comments:

1.	Is the facility designated as a "first responder" in case of an accidental release of regulated substances"	■Y N/A	☐N ☐
1.a.	If the facility is not a first responder:		
1.a.(1)	For stationary sources with any regulated substances held in a process above threshold quantities, is the source included in the community emergency response plan developed under 42 U.S.C. 11003? [68.90(b)(1)]	■Y N/A	☐N ☐
1.a.(2)	For stationary sources with only regulated flammable substances held in a process above threshold quantities, has the owner or operator coordinated response actions with the local fire department? [68.90(b)(2)]	■Y N/A	☐N ☐
1.a.(3)	Are appropriate mechanisms in place to notify emergency responders when there is need for a response? [68.90(b)(3)]	■Y N/A	☐N ☐
2.	An emergency response plan is maintained at the stationary source and contains the following? [68.95(a)(1)] ☐ Procedures for informing the public and local emergency response agencies about accidental releases? [68.95(a)(1)(i)] ☐ Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures? [68.95(a)(1)(ii)] ☐ Procedures and measures for emergency response after an accidental release of a regulated substance? [68.95(a)(1)(iii)]	■Y N/A	☐N ☐
3.	The emergency response plan contains procedures for the use of emergency response equipment and for its inspection, testing, and maintenance? [68.95(a)(2)]	■Y N/A	☐N ☐
4.	The emergency response plan requires, and there is documentation of, training for all employees in relevant procedures? [68.95(a)(3)]	■Y N/A	☐N ☐
5.	The owner or operator has developed and implemented procedures to review and update, as appropriate, the emergency response plan to reflect changes at the stationary source and ensure that employees are informed of changes? [68.95(a)(4)]	■Y N/A	☐N ☐

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6. Did the owner or operator use a written plan that complies with other Federal contingency plan regulations or is consistent with the approach in the National Response Team's Integrated Contingency Plan Guidance ("One Plan")? If so, does the plan include the elements provided in paragraph (a) of 68.95, and also complies with paragraph (c) of 68.95? [68.95(b)]	■Y N/A	☐N	☐
7. Has the emergency response plan been coordinated with the community emergency response plan developed under EPCRA? [68.95(c)]	■Y N/A	☐N	☐
Section H – Risk Management Plan [40 CFR 68.190 – 68.195]			
1. Does the single registration form include, for each covered process, the name and CAS number of each regulated substance held above the threshold quantity in the process, the maximum quantity of each regulated substance or mixture in the process (in pounds) to two significant digits, the five- or six-digit NAICS code that most closely corresponds to the process and the Program level of the process? [68.160(b)(7)]	■Y N/A	N	☐
2. Did the facility assign the correct program level(s) to its covered process(es)? [68.160(b)(7)]	■Y N/A	☐N	☐
3. Has the owner or operator reviewed and updated the RMP and submitted it to EPA [68.190(a)]? Reason for update: ☐ Five-year update. [68.190(b)(1)] ☐ Within three years of a newly regulated substance listing. [68.190(b)(2)] ☐ At the time a new regulated substance is first present in an already regulated process above threshold quantities. [68.190(b)(3)] ☐ At the time a regulated substance is first present in an new process above threshold quantities. [68.190(b)(4)] ☐ Within six months of a change requiring revised PHA or hazard review. [68.190(b)(5)] ☐ Within six months of a change requiring a revised OCA as provided in 68.36. [68.190(b)(6)] ☐ Within six months of a change that alters the Program level that applies to any covered process. [68.190(b)(7)]	■Y NA	N	☐

Comment [MSOffice6]: Not listed what the update was for...

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4. If the owner or operator experienced an accidental release that met the five-year accident history reporting criteria (as described at 68.42) subsequent to April 9, 2004, did the owner or operator submit the information required at 68.168, 68.170(j) and 68.175(l) within six months of the release or by the time the RMP was updated as required at 68.190, whichever was earlier. [68.195(a)] No they failed to report the CO release.	☐Y ■N ☐ N/A
5. If the emergency contact information required at 68.160(b)(6) has changed since June 21, 2004, did the owner or operator submit corrected information within thirty days of the change? [68.195(b)]	■Y ☐N ☐ N/A