Allen County Environmental Citizens' Advisory Committee Husky - Lima Refinery Status Report

1. EXCEEDANCES/RELEASES

The table below summarizes the last four years of environmental performance.

	2014	2015	2016	2017
Air Overall Excess Emissions Compliance	99.5%	99.3%	94.4%	98.5%
SARA Reportables	7	7	7	3
CERCLA Reportables	6	2	4	2
NPDES Reportables	4	1	2	2
Agency Reportable Spills (including RCRA)	1	3	0	0

Reportable Release Summary

Emissions/Release

Date	Release Type	Description	Selenium (ppb)	SO ₂ (tons)	NOx (tons)
4/11/17	SARA/ CERCLA (NOx)	Bypassed the Reformer Furnace Selective Catalytic Reduction (SCR) system due to problems with the furnace damper.	NA	NA	0.92
5/20/17	SARA (SO ₂)	The process upset at the LIU Amine Treater resulted in an exceedance of the H ₂ S limit for treated fuel gas. This gas was fired in the LIU furnaces, leading to a SARA release for SO ₂ .	NA	0.38	NA
6/30/17	NPDES Exceedance	Exceeded the average monthly selenium concentration limit for June (12.0 ppb), along with the loading limit (0.245 Kg/day).	14.4	NA	NA

Reportable Quantities NA = Not Applicable

 $SO_2 = 500 lbs$

 $H_2S = 100 \text{ lbs}$

 $H_2SO4 = 1,000 lbs$

NOx = 1,000 lbs

2. Permits/Projects

No.	Description	Permit Application Type	Permit Issued Final
1	The Ohio EPA issued a final Permit-to-Drill for the Deepwell Injection Project.	UIC	Yes
2	The Ohio EPA issued the NPDES Renewal Permit that includes an increased average monthly selenium concentration and loading limits based on LRC's commitment to install the Water Reuse Project (WRP) by the end of 2018.	NPDES	Yes
	The wastewater Permit-to-Install applications have been submitted to the Ohio EPA for the first two phases of the WRP, with the 3rd and final phase application pending.	Wastewater	No

Agency Inspections/Enforcement/Rulemaking

- 1. The Ohio EPA issued a follow-up report for the RCRA Hazardous Waste inspection that was conducted in early May. There were no findings of violation of any monitoring, record-keeping, or reporting requirements.
- 2. The Ohio EPA was on-site May 9th for the annual air compliance inspection. The inspection included a field walk and review of monitoring records, including:
 - a) CEMS
 - b) LDAR
 - c) Tank Inspections and Throughputs
 - d) Loading Racks
 - e) Emissions Calculations
 - f) Process Monitoring (flows, temps, pressure, etc.)
 - g) SSM forms
- 3. June 5, 2017 Notice of Violation (NOV) issued by the Ohio EPA, and Resolution of Violation letter issued June 28, 2017 for issues pertaining to the following:
 - a) B002 (Isocracker) failure to conduct initial NSPS Ja NOx performance test by 2/8/2017
 - b) B035 (B&W boiler) NOx excess emissions >0.038 lb/MMBtu during 1Q2017 (7.78% for quarter)
 - c) B006 (Reformer) failure to record bypass stack temp readings
- 4. The LRC Consent Decree (CD2) was filed June 22nd.
 - a) LRC and EPA/DOJ filed a joint motion to terminate the 2007 consent decree (CD1) in Texas, where it was lodged due to it originally being a Valero CD. The termination motion was prepared by the EPA/DOJ.
 - b) EPA/DOJ simultaneously filed a complaint against LRC and lodged CD2 in the federal court in the Northern District of Ohio (Toledo). The CD2 was published in the federal register with a public comment period of 30 days. After the comment period expires, EPA/DOJ will file a motion asking the court to enter the Consent Decree.

Acronyms			
AFE	Authorization for Expenditure	MBPD	Thousand barrels per day
AFU or DAF	Air Flotation Unit (Dissolved Air Flotation)	mg/L	Milligram per liter
AWWTP	Advanced Wastewater Treatment Plant	NESHAP	National Emission Standards for Hazardous Air Pollutants
ВЕНР	Bis(2-ethylhexyl) Phthalate	NOV	Notice of Violation
Btu	British Thermal Unit	NOx	Nitrogen Oxides
CEMS	Continuous Emission Monitor System	NPDES	National Pollution Discharge Elimination
CERCLA	Comprehensive Environmental, Response, Compensation and Liability Act	NSPS	New Source Performance Standard
СО	Carbon Monoxide	OEPA	Ohio Environmental Protection Agency
DHT	Diesel Hydrotreater	PSV	Pressure Safety Valve
DMRQA	Discharge Monitoring Report Quality Assurance	PTI	Permit to Install
EHS	Environmental, Health & Safety	RCFA	Root Cause Failure Analysis
EPA/USEPA	Environmental Protection Agency	RQ	Reportable Quantity
EPCRA	Emergency Planning and Community Right-to-Know Act	RCRA	Resource Conservation and Recovery Act
ERAC	Environmental Review Appeals Commission	SARA	Superfund Amendments and Reauthorization Act
ESP	Electrostatic Precipitator	SCR	Selective Catalytic Reduction
FCCU	Fluidized Catalytic Cracking Unit	SGP	Saturated Gas Plant
HDS	Hydro-Desulfurization	SO ₂	Sulfur Dioxide
H ₂ S	Hydrogen Sulfide	SRU	Sulfur Recovery Unit
LIU	Lima Integrated Unit	TRI	Toxic Release Inventory
КНТ	Kerosene Hydrotreater	TSCA	Toxic Substance Control Act
LDAR	Leak Detection and Repair	VOC	Volatile Organic Compound

Allen County Environmental Citizens Advisory Committee INEOS Lima Chemicals Status Report Second Quarter 2017

Health, Safety and Environment Performance Summary

Ineos and PCS Nitrogen Facility*	2009	<u>2010</u>	<u>2011</u>	2012	2013	<u>2014</u>	<u>2015</u>	<u>2016</u>	2017
OSHA Recordable' s	1	2	0	5	5	1	6	2	1
DAFW Injuries	0	1	0	2	1	0	0	1	0
RQ Releases	4	0	1	2	1	2	2	0	0
UIC Permit % Compliance	100%	99.99%	99.99%	100%	100%	99.99%	99.99%	100%	99.9%
AOGI Service Factor	99.7%	100%	100%	99.99%	99.99%	100%	99.9%	99.99%	100%

Safety:

- Curt Good has been named to the Safety Representative for the Union.
- The 2Q17 Quarterly Table top drill covered tornado response and 3Q17 covered fire response and evacuations.
- Fall Protection Awareness Training was held this week in the maintenance shop.

Environmental:

- The mechanical integrity testing on Deep Well#2 and #4 was completed in the 2nd quarter; no issues were found.
- A Permit modification was submitted to OEPA for the RCRA permit. The modification will update analytical testing protocols for the ground water monitoring program.
- Two OEPA representatives were on site Wednesday, June 14 for a compliance inspection of the closure cells. There were no findings.
- Two USEPA representatives and conducted an unannounced RCRA inspection this quarter. The close out meeting indicated that they found no issues. We are waiting for a letter confirming that statement.
- The TRI and Greenhouse Gas Reports have been submitted covering the 2016 emissions.
- Title V permit application questions have been addressed. OEPA's plan is to issue a draft renewal permit by end of August with the final issuance in the 4th Quarter this year.
- A permit deviation was identified on #1 deepwell in June. The annulus differential pressure went to zero when the annulus tank was isolated from the well while the safety valve was being inspected, cleaned and calibrated. Ohio EPA was notified immediately and the differential pressure was restored upon discovery.

PSM – Process Safety Management:

• The site is in the process of transitioning to ISO9000: 2015. A gap analysis has been conducted and changes in the procedure references are being updated to meet the new standard.

General

• Based on a facility security audit additional cameras have been added to the SO2 cylinders, loading rack and HCN drum areas.

Acronyms

AOGI Absorber Off Gas Incinerator
BSI British Standard Institute

BST Behavioral Science Technology
CAPU Continuous Acetonitrile Purification Unit

CEM Continuous Emission Monitor

CERCLA Comprehensive Environmental Response, Compensation and Liability Act

CGA Cylinder Gas Audit

CWC Chemical Weapons Convention

DAFW Days Away From Work
DCS Distributed Control System
DHS Department of Homeland Security
EBA Emergency Breathing Apparatus
EMA Emergency Management Agency

FOV Finding of Violation
FRC Flame Resistant Clothing
HAZOP Hazard and Operability Study

ISO International Organization of Standardization

LASER Lima Area Security and Emergency Response Team

LDAR Leak Detection and Repair

LEPC Local Emergency Planning Committee

LOPA Layers of Protection Analysis

LOTO Lock Out Tag Out NOV Notice of Violation

NPDES National Pollutant Discharge Elimination System

OAC Ohio Administrative Code

OCTC Ohio Chemistry Technology Council

ODH Ohio Department of Health

OEL Open Ended Line

OEPA Ohio Environmental Protection Agency

OSHA Occupational Safety and Health Administration

MIT Mechanical Integrity Test
MOC Management of Change

NIMS National Incident Management System

OEL Open Ended Lines
PHA Process Hazard Analysis
PPE Personal Protective Equipment
PSM Process Safety Management
PSV Pressure Safety Valve

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PTI Permit to Install

RATA Relative Accuracy Test Audit

RCRA Resource Conservation and Recovery Act

RQ Reportable Quantity

SARA Superfund Amendments and Reauthorization Act

SCBA Self Contained Breathing Apparatus
SERC State Emergency Response Commission

SHE Safety, Health & Environmental

SIL Safety Integrity Level

SWMU Solid Waste Management Unit

TAR Turnaround

UIC Underground Injection Control
VOC Volatile Organic Compounds
WDW Waste Disposal Well (Deepwell)

Allen County Environmental Citizen's Advisory Committee ISP Status Report (April 2017 – June 2017)

18 July 2017

1. SAFETY/SECURITY

	2015	2016	2017 YTD
OSHA recordable – ISP	0	0	0
OSHA recordable - Contractors	0	0	0

2. RELEASES

• No RQ incidents (CY2017 = 0)

3. AIR

- The following reports were submitted to Environmental Protection Agency (EPA):
 - o Emissions inventory
 - o Title V Compliance Certification
 - o Toxic Release Inventory (TRI 313)

4. WATER

• Nothing to report

5. RESOURCE CONSERVATION AND RECOVERY ACT

• Nothing to report

6. OTHER

• Nothing to report

Ohio EPA Report - Environmental Citizens Advisory Committee

July 18, 2017

Lima Refining Company / Husky Energy

Division of Environmental Response and Revitalization

On May 11, 2017, a hazardous waste compliance evaluation inspection was conducted at the facility. A notice of compliance documenting the inspection was issued on June 5, 2017.

Division of Surface Water

On July 1, 2017, the facility's NPDES permit was issued. This permit allows the refinery a higher selenium limit until December 31, 2018, when the water reuse project is scheduled to be completed.

Division of Air Pollution Control

On May 9, 2017, a title V air compliance inspection was conducted at the facility. A notice of violation letter was issued on June 15, 2017, for violations noted at the time of the inspection. On June 28, 2017, a resolution of violation letter was issued to the facility.

Ineos Nitriles USA LLC

Nothing to report.

PCS Nitrogen Ohio, L.P.

Nothing to report.

ISP Lima LLC

Nothing to report.

Fort Amanda Specialties LLC (Akzo Nobel)

Nothing to report.

Acronyms

AOGI - absorber offgas incinerator

BP - British Petroleum

CEMS - continuous emission monitors

CO - Central Office

DFFO's - director's final findings and orders

LDAR - leak detection and repair

NOD - notice of deficiency

NWDO - Northwest District Office

PTI - permit to install

BDO - butanediol

CEM - continuous emission monitor

CMS - corrective measures study

DAPC - Division of Air Pollution Control

ECAC - Environmental Citizens Advisory Committee

LIU - Lima integrated unit division of hazardous waste management

NOV - Notice of Violation

OAC - Ohio Administrative Code

PTO - permit to operate

SOGI - scrubber off-gas incinerator NESHAPS - national emission standards for hazardous air pollutants

NSPS new source performance standards

MACT maximium achievable control technology

NPDES - national pollutant discharge elimination system

WTE - water treatment plant

ERAC - Environmental Review Appeals Commission