CVR ENERGY INC Form 10-K February 21, 2017 <u>Table of Contents</u>

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

Form 10-	K				-			
(Mark								
One)								
þ	ANNUAL REPORT PURSU OF 1934	)F THE SECURITIES EXCHANGE ACT						
	For the fiscal year ended December 31, 2016							
	OR TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE							
0								
0	ACT OF 1934							
	For the transition period from	L		to				
Commiss	ion file number: 001-33492							
CVP Eng	ray Inc							
(Evact na	agy, mc.	its charter	)					
Delaware	ine of registrant as specified in	61-15121	86					
(State or Other Jurisdiction of (LR S Employer								
Incorpora	tion or Organization)	Identifica	tion No.)					
2277 Plaz	za Drive, Suite 500							
Sugar La	nd, Texas	7/4/9	`					
(Address	of Principal Executive Offices)	(Zip Cod	e)					
Registran	t's Telephone Number, includir	ng Area Co	de:					
(281) 207	-3200	C						
					-			
Sec	curities registered pursuant to Se	ection 12(b	) of the A	.ct:				
Title of Each Class		N	ame of Ea	ich Exchange o	n Which			
a		R	egistered					
Common	Stock, \$0.01 par value per shar	e T	The New York Stock Exchange					
Sec	curities registered pursuant to Se	ection 12(g	;) of the A	let:				
None Indianta k		o o			defined in Dula 105 of the Securities			
Act Vo	by check mark if the registrant i	s a well-ki	lown seaso	Shed Issuer, as	defined in Rule 403 of the Securities			
Act. 10 Indicate k	s o Nop	a not roqui	rad to fila	roporte purcue	nt to Section 13 or Section 15(d) of the			
Act Ve	by check mark if the registrant i	s not requi		reports pursua	in to section 15 of section 15(d) of the			
Indicate h	w check mark whether the region	strant (1) h	as filed al	l reports requir	ed to be filed by Section 13 or 15(d) of the			
Securities	s Exchange Act of 1934 during	the preced	ing 12 mc	on the for for suc	shorter period that the registrant was			
required t	to file such reports), and $(2)$ has	been subi	ect to such	n filing require	ments for the past			
90 days.	Yesb Noo	j						
Indicate b	by check mark whether the regis	strant has s	ubmitted	electronically a	and posted on its corporate Web site, if			
any, ever	y Interactive Data File required	to be subr	nitted and	posted pursuar	nt to Rule 405 or Regulation S-T			
(§232.40	5 of this chapter) during the pre	ceding 12	months (o	r for such short	ter period that the registrant was required			
to submit	and post such files). Yes b	Noo						

Indicate by check mark	t if disclosure of de	linquent filers pursuar	t to Item 405 of Regulatio	n S-K (§229.405 of this			
chapter) is not contained	ed herein, and will	not be contained, to the	e best of registrant's knowl	edge, in definitive proxy or			
information statements	incorporated by re	ference in Part III of th	nis Form 10-K or any ame	ndment to this			
Form 10-K. þ							
Indicate by check mark or a smaller reporting or reporting company" in	whether the regist company. See the d Rule 12b-2 of the 1	rant is a large accelera efinitions of "large acc Exchange Act.	ted filer, an accelerated fil celerated filer," "accelerate	er, a non-accelerated filer, d filer" and "smaller			
Large accelerated Accelerated filer o filer b		Non-accelerated filer o		Smaller reporting company o			
		(Do not check if a sma	ller reporting				
		company)					
Indicate by check mark Act). Yes o No b	whether the regist	rant is a shell company	y (as defined in Rule 12b-2	2 of the Exchange			
The aggregate market v computed based on the registrant's second fisc officer and director and	value of the voting New York Stock I al quarter) was \$24 I by each entity or	and non-voting comm Exchange closing price 2,301,131. Shares of the person that, to the regi	on equity held by non-affil on June 30, 2016 (the last he registrant's common sto strant's knowledge, owned	liates of the registrant business day of the ck held by each executive 10% or more of the			
registrant's outstanding common stock as of June 30, 2016 have been excluded from this number in that these persons							
may be deemed affiliat	es of the registrant	. This determination of	f possible affiliate status is	not necessarily a			
conclusive determination for other purposes.							
Indicate the number of practicable date.	shares outstanding	of each of the registra	nt's classes of common sto	ock, as of the latest			
Class	lass Outstanding at February 14, 2017						
Common Stock, par va	lue \$0.01 per share	e 86,831,050 shares					
Documents Incorporate	ed By Reference						
Document			Parts Incorporated				
Proxy Statement for the	e 2017 Annual Me	eting of Stockholders	Items 10, 11, 12, 13 and 1	4 of Part III			

# TABLE OF CONTENTS

		Page
	<u>PART I</u>	Ū
<u>Item 1.</u>	Business	<u>6</u>
Item 1A	<u>.Risk Factors</u>	<u>22</u>
Item 1B	<u>. Unresolved Staff Comments</u>	<u>49</u>
<u>Item 2.</u>	Properties	<u>50</u>
<u>Item 3.</u>	Legal Proceedings	<u>50</u>
<u>Item 4.</u>	Mine Safety Disclosures	<u>50</u>
	<u>PART II</u>	
Itom 5	Market For Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity	51
<u>nem 3.</u>	Securities	<u>J1</u>
<u>Item 6.</u>	Selected Financial Data	<u>55</u>
<u>Item 7.</u>	Management's Discussion and Analysis of Financial Condition and Results of Operations	<u>57</u>
Item 7A	Quantitative and Qualitative Disclosures About Market Risk	<u>101</u>
<u>Item 8.</u>	Financial Statements and Supplementary Data	<u>104</u>
<u>Item 9.</u>	Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	<u>161</u>
Item 9A	.Controls and Procedures	<u>161</u>
Item 9B	<u>. Other Information</u>	<u>161</u>
	<u>PART III</u>	
<u>Item 10.</u>	Directors, Executive Officers and Corporate Governance	<u>162</u>
<u>Item 11.</u>	Executive Compensation	<u>162</u>
<u>Item 12.</u>	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	<u>162</u>
<u>Item 13.</u>	Certain Relationships and Related Transactions, and Director Independence	<u>162</u>
<u>Item 14.</u>	Principal Accounting Fees and Services	<u>162</u>
	<u>PART IV</u>	
Item 15.	Exhibits, Financial Statement Schedules	<u>163</u>

#### Table of Contents

#### GLOSSARY OF SELECTED TERMS

The following are definitions of certain terms used in this Annual Report on Form 10-K for the year ended December 31, 2016 (this "Report").

2021 Notes — \$320.0 million aggregate principal amount of 6.5% Senior Notes due 2021, which were issued by CVR Nitrogen and CVR Nitrogen Finance.

2022 Notes — \$500.0 million aggregate principal amount of 6.5% Senior Notes due 2022, which were issued by Refining, LLC and Coffeyville Finance on October 23, 2012 and fully and unconditionally guaranteed by the Refining Partnership and each of Refining LLC's domestic subsidiaries other than Coffeyville Finance.

2023 Notes — \$645.0 million aggregate principal amount of 9.25% Senior Secured Notes due 2023, which were issued through CVR Partners and CVR Nitrogen Finance.

2-1-1 crack spread — The approximate gross margin resulting from processing two barrels of crude oil to produce one barrel of gasoline and one barrel of distillate. The 2-1-1 crack spread is expressed in dollars per barrel.

ABL Credit Facility —The Nitrogen Fertilizer Partnership's senior secured asset based revolving credit facility with a group of lenders and UBS AG, Stamford Branch, as administrative agent and collateral agent.

Amended and Restated ABL Credit Facility — The Refining Partnership's senior secured asset based revolving credit facility with a group of lenders and Wells Fargo, as administrative agent and collateral agent.

ammonia — Ammonia is a direct application fertilizer and is primarily used as a building block for other nitrogen products for industrial applications and finished fertilizer products.

barrel — Common unit of measure in the oil industry which equates to 42 gallons.

blendstocks — Various compounds that are combined with gasoline or diesel from the crude oil refining process to make finished gasoline and diesel fuel; these may include natural gasoline, fluid catalytic cracking unit or FCCU gasoline, ethanol, reformate or butane, among others.

bpd — Abbreviation for barrels per day.

bpcd — Abbreviation for barrels per calendar day, which refers to the total number of barrels processed in a refinery within a year, divided by the total number of days in the year (365 or 366 days), thus reflecting all operational and logistical limitations.

bulk sales — Volume sales through third-party pipelines, in contrast to tanker truck quantity rack sales.

capacity — Capacity is defined as the throughput a process unit is capable of sustaining, either on a calendar or stream day basis. The throughput may be expressed in terms of maximum sustainable, nameplate or economic capacity. The maximum sustainable or nameplate capacities may not be the most economical. The economic capacity is the throughput that generally provides the greatest economic benefit based on considerations such as crude oil and other feedstock costs, product values and downstream unit constraints.

catalyst — A substance that alters, accelerates, or instigates chemical changes, but is neither produced, consumed nor altered in the process.

Coffeyville Fertilizer Facility — CVR Partners' nitrogen fertilizer manufacturing facility located in Coffeyville, Kansas.

Coffeyville Finance — Coffeyville Finance Inc., a wholly-owned subsidiary of Refining LLC and an indirect wholly-owned subsidiary of the Refining Partnership.

corn belt —The primary corn producing region of the United States, which includes Illinois, Indiana, Iowa, Minnesota, Missouri, Nebraska, Ohio and Wisconsin.

#### Table of Contents

crack spread — A simplified calculation that measures the difference between the price for light products and crude oil. For example, the 2-1-1 crack spread is often referenced and represents the approximate gross margin resulting from processing two barrels of crude oil to produce one barrel of gasoline and one barrel of distillate.

Credit Parties ----CRLLC and certain subsidiaries party to the Amended and Restated ABL Credit Facility.

CRLLC— Coffeyville Resources, LLC, a wholly-owned subsidiary of the Company.

CRPLLC — Coffeyville Resources Pipeline, LLC.

CRLLC Facility —The Nitrogen Fertilizer Partnership's \$300.0 million senior term loan credit facility with CRLLC, which was repaid in full and terminated on June 10, 2016.

CRNF— Coffeyville Resources Nitrogen Fertilizers, LLC a subsidiary of the Nitrogen Fertilizer Partnership.

CRRM— Coffeyville Resources Refining & Marketing, LLC, a wholly-owned subsidiary of Refining LLC and indirect wholly-owned subsidiary of the Refining Partnership.

CVR Energy or CVR or Company — CVR Energy, Inc.

CVR Nitrogen — CVR Nitrogen, LP (formerly known as East Dubuque Nitrogen Partners, L.P. and also formerly known as Rentech Nitrogen Partners L.P.).

CVR Nitrogen GP— CVR Nitrogen GP, LLC (formerly known as East Dubuque Nitrogen GP, LLC and also formerly known as Rentech Nitrogen GP, LLC).

CVR Partners or the Nitrogen Fertilizer Partnership - CVR Partners, LP.

CVR Refining or the Refining Partnership — CVR Refining, LP. and it's subsidiaries.

CVR Refining GP — CVR Refining GP, LLC.

distillates — Primarily diesel fuel, kerosene and jet fuel.

East Dubuque Facility — CVR Partners' nitrogen fertilizer manufacturing facility located in East Dubuque, Illinois.

East Dubuque Merger — The transactions contemplated by the Merger Agreement, whereby the Nitrogen Fertilizer Partnership acquired CVR Nitrogen and CVR Nitrogen GP on April 1, 2016.

EPA— The United States Environmental Protection Agency.

ethanol — A clear, colorless, flammable oxygenated hydrocarbon. Ethanol is typically produced chemically from ethylene, or biologically from fermentation of various sugars from carbohydrates found in agricultural crops and cellulosic residues from crops or wood. It is used in the United States as a gasoline octane enhancer and oxygenate.

Excel Pipeline — Excel Pipeline LLC.

Exchange Act — Securities Exchange Act of 1934, as amended.

farm belt — Refers to the states of Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Texas and Wisconsin.

feedstocks — Petroleum products, such as crude oil and natural gas liquids, that are processed and blended into refined products, such as gasoline, diesel fuel and jet fuel during the refining process.

FIFO— First-in, first-out.

GAAP—U.S. generally accepted accounting principles.

#### Table of Contents

Group 3 — A geographic subset of the PADD II region comprising refineries in Oklahoma, Kansas, Missouri, Nebraska and Iowa. Current Group 3 refineries include the Refining Partnership's Coffeyville and Wynnewood refineries; the Valero Ardmore refinery in Ardmore, OK; HollyFrontier's Tulsa refinery in Tulsa, OK and El Dorado refinery in El Dorado, KS; Phillips 66's Ponca City refinery in Ponca City, OK; and CHS Inc.'s refinery in McPherson, KS.

heavy crude oil — A relatively inexpensive crude oil characterized by high relative density and viscosity. Heavy crude oils require greater levels of processing to produce high value products such as gasoline and diesel fuel.

independent petroleum refiner — A refiner that does not have crude oil exploration or production operations. An independent refiner purchases the crude oil throughputs in its refinery operations from third parties.

intercompany credit facility — A \$250.0 million senior unsecured revolving credit facility between CRLLC and Refining LLC.

light crude oil — A relatively expensive crude oil characterized by low relative density and viscosity. Light crude oils require lower levels of processing to produce high value products such as gasoline and diesel fuel.

Magellan — Magellan Midstream Partners L.P., a publicly traded company whose business is the transportation, storage and distribution of refined petroleum products.

Merger Agreement —The Agreement and Plan of Merger, dated as of August 9, 2015, whereby the Nitrogen Fertilizer Partnership acquired CVR Nitrogen and CVR Nitrogen GP.

MMBtu — One million British thermal units or Btu: a measure of energy. One Btu of heat is required to raise the temperature of one pound of water one degree Fahrenheit.

MSCF — One thousand standard cubic feet, a customary gas measurement unit.

natural gas liquids — Natural gas liquids, often referred to as NGLs, are both feedstocks used in the manufacture of refined fuels, as well as products of the refining process. Common NGLs used include propane, isobutane, normal butane and natural gasoline.

Nitrogen Fertilizer Partnership credit facility — CRNF's \$125.0 million term loan, \$25.0 million revolving and \$50.0 million uncommitted incremental credit facility, guaranteed by the Nitrogen Fertilizer Partnership, entered into with a group of lenders including Goldman Sachs Lending Partners LLC, as administrative and collateral agent, which was repaid in full and terminated on April 1, 2016.

PADD II — Midwest Petroleum Area for Defense District which includes Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, and Wisconsin.

petroleum coke (pet coke) — A coal-like substance that is produced during the refining process.

product pricing at gate — Product pricing at gate represents net sales less freight revenue divided by product sales volume in tons. Product pricing at gate is also referred to as netback.

rack sales — Sales which are made at terminals into third-party tanker trucks.

refined products — Petroleum products, such as gasoline, diesel fuel and jet fuel, that are produced by a refinery.

Refining LLC — CVR Refining, LLC, a wholly-owned subsidiary of the Refining Partnership.

Refining Partnership IPO—The initial public offering of 27,600,000 common units representing limited partner interests of the Refining Partnership, which closed on January 23, 2013 (which includes the underwriters' subsequently exercised option to purchase additional common units).

RFS — Renewable Fuel Standard of the EPA.

RINs— Renewable fuel credits, known as renewable identification numbers.

#### Table of Contents

SEC —Securities and Exchange Commission.

Second Underwritten Offering — The second underwritten offering of 7,475,000 common units of the Refining Partnership, which closed on June 30, 2014 (which includes the underwriters' subsequently exercised option to purchase additional common units).

sour crude oil — A crude oil that is relatively high in sulfur content, requiring additional processing to remove the sulfur. Sour crude oil is typically less expensive than sweet crude oil.

spot market — A market in which commodities are bought and sold for cash and delivered immediately.

sweet crude oil — A crude oil that is relatively low in sulfur content, requiring less processing to remove the sulfur. Sweet crude oil is typically more expensive than sour crude oil.

Tender Offer — The cash tender offer commenced on April 29, 2016 by CVR Nitrogen and CVR Nitrogen Finance Corporation to purchase any and all of the outstanding 2021 Notes at 101.5% of par value.

throughput — The volume processed through a unit or a refinery or transported on a pipeline.

turnaround — A periodically required standard procedure to inspect, refurbish, repair and maintain the refinery or nitrogen fertilizer plant assets. This process involves the shutdown and inspection of major processing units and occurs every four to five years for the refineries and every two to three years for the nitrogen fertilizer plant.

UAN — An aqueous solution of urea and ammonium nitrate used as a fertilizer.

Underwritten Offering — The underwritten offering of 13,209,236 common units of the Refining Partnership, which closed on May 20, 2013 (which includes the underwriters' subsequently exercised option to purchase additional common units).

Velocity — Velocity Central Oklahoma Pipeline LLC.

Vitol-Vitol Inc.

Vitol Agreement — The Amended and Restated Crude Oil Supply Agreement between Vitol and CRRM.

VPP --- Velocity Pipeline Partners, LLC.

WCS —Western Canadian Select crude oil, a medium to heavy, sour crude oil, characterized by an American Petroleum Institute gravity ("API gravity") of between 20 and 22 degrees and a sulfur content of approximately 3.3 weight percent.

Wells Fargo — Wells Fargo Bank, National Association.

Wells Fargo Credit Agreement— CVR Nitrogen's credit agreement with Wells Fargo, as successor-in-interest by assignment from General Electric Company, as administrative agent, which was repaid in April 2016 and terminated.

WTI — West Texas Intermediate crude oil, a light, sweet crude oil, characterized by an API gravity between 39 and 41 degrees and a sulfur content of approximately 0.4 weight percent that is used as a benchmark for other crude oils.

WTS — West Texas Sour crude oil, a relatively light, sour crude oil characterized by an API gravity of between 30 and 32 degrees and a sulfur content of approximately 2.0 weight percent.

yield — The percentage of refined products that is produced from crude oil and other feedstocks.

### PART I

Item 1. Business

Overview

CVR Energy, Inc. and, unless the context otherwise requires, its subsidiaries ("CVR Energy," the "Company," "we," "us," or "our") is a diversified holding company primarily engaged in the petroleum refining and nitrogen fertilizer manufacturing industries through its holdings in CVR Refining, LP ("CVR Refining" or the "Refining Partnership") and CVR Partners, LP ("CVR Partners" or the "Nitrogen Fertilizer Partnership"). The Refining Partnership is an independent petroleum refiner and marketer of high value transportation fuels. The Nitrogen Fertilizer Partnership produces and markets nitrogen fertilizers in the form of UAN and ammonia. We own the general partner and approximately 66% and 34% respectively, of the outstanding common units representing limited partner interests in each of the Refining Partnership and the Nitrogen Fertilizer Partnership. CVR Energy's common stock is listed on the New York Stock Exchange ("NYSE") under the symbol "CVI," the Refining Partnership's common units are listed on the NYSE under the symbol "CVRR" and the Nitrogen Fertilizer Partnership's common units are listed on the NYSE under the symbol "UAN." As of December 31, 2016, Icahn Enterprises L.P. and its affiliates owned approximately 82% of our outstanding common stock.

We operate under two business segments: petroleum (the petroleum and related businesses operated by the Refining Partnership) and nitrogen fertilizer (the nitrogen fertilizer business operated by the Nitrogen Fertilizer Partnership). Throughout the remainder of this document, our business segments are referred to as the "petroleum business" and the "nitrogen fertilizer business," respectively.

For the fiscal years ended December 31, 2016, 2015 and 2014, we generated consolidated net sales of \$4.8 billion, \$5.4 billion and \$9.1 billion, respectively, and operating income of \$90.9 million, \$421.6 million and \$264.3 million, respectively. The petroleum business generated \$4.4 billion, \$5.2 billion and \$8.8 billion of net sales and the nitrogen fertilizer business generated \$356.3 million, \$289.2 million and \$298.7 million of net sales, in each case, for the years ended December 31, 2016, 2015 and 2014, respectively. The petroleum business generated operating income of \$77.8 million, \$361.7 million and \$207.2 million and the nitrogen fertilizer business generated operating income of \$26.8 million, \$68.7 million and \$82.8 million, in each case, for the years ended December 31, 2016, 2015 and 2014, respectively. Our consolidated results of operations include certain other unallocated corporate activities and the elimination of intercompany transactions and, therefore, are not a sum of the operating results of the petroleum and nitrogen fertilizer businesses.

Refer to Item 1, "Petroleum Business" and Item 1, "Nitrogen Fertilizer Business" and Item 8, Note 18 ("Business Segments") for further details on our business segments.

#### Our History

The Coffeyville refinery, which began operations in 1906, and the Coffeyville nitrogen fertilizer plant, built in 2000, were operated as components of Farmland Industries, Inc. ("Farmland") until March 3, 2004, the date on which Coffeyville Resources, LLC ("CRLLC") completed the acquisition of these assets through a bankruptcy court auction.

On June 24, 2005, Coffeyville Acquisition LLC ("CALLC"), which was formed by certain funds affiliated with Goldman, Sachs & Co. and Kelso & Company, L.P. (the "Goldman Sachs Funds" and the "Kelso Funds," respectively), acquired these businesses. CALLC operated our business from June 24, 2005 until CVR Energy's initial public offering in October 2007.

CVR Energy was formed in September 2006 as a subsidiary of CALLC in order to consummate an initial public offering of its businesses. CVR Energy consummated its initial public offering on October 26, 2007. The Goldman Sachs Funds and the Kelso Funds completely sold their ownership interests by February 2011 and May 2011, respectively.

On April 13, 2011, the Nitrogen Fertilizer Partnership completed the Nitrogen Fertilizer Partnership IPO. The Nitrogen Fertilizer Partnership sold 22,080,000 common units at a price of \$16.00 per common unit, resulting in gross proceeds of \$353.3 million. The Nitrogen Fertilizer Partnership's common units are listed on the NYSE and are traded under the symbol "UAN." In connection with the Nitrogen Fertilizer Partnership IPO, the Nitrogen Fertilizer Partnership paid approximately \$24.7 million in underwriting fees and incurred approximately \$4.4 million of other offering costs. As a result of the Nitrogen Fertilizer Partnership IPO and through May 27, 2013, CVR Energy indirectly owned approximately 70% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common units and 100% of the Nitrogen Fertilizer Partnership's outstanding common

On December 15, 2011, CVR Energy acquired all of the issued and outstanding shares of WEC. Assets acquired include a 70,000 bpcd rated capacity refinery in Wynnewood, Oklahoma and approximately 2.0 million barrels of company-owned storage tanks.

On April 18, 2012, CVR Energy entered into a Transaction Agreement (the "Transaction Agreement") with an affiliate of Icahn Enterprises L.P. ("IEP"). Pursuant to the Transaction Agreement, IEP's affiliate offered (the "Offer") to purchase all of the issued and outstanding shares of CVR Energy's common stock for a price of \$30.00 per share in cash, without interest, less any applicable withholding taxes, plus one non-transferable contingent cash payment ("CCP") right for each share, which represented the contractual right to receive an additional cash payment per share if a definitive agreement for the sale of CVR Energy was executed on or before August 18, 2013 and such transaction closed. As no sale of the Company was executed by the date outlined in the Transaction Agreement, the CCPs expired on August 19, 2013.

In May 2012, IEP's affiliate acquired a majority of the common stock of CVR Energy through the Offer. As of December 31, 2016, IEP and its affiliates owned approximately 82% of CVR Energy's outstanding common stock.

On January 23, 2013, the Refining Partnership completed the Refining Partnership IPO. The Refining Partnership sold 24,000,000 common units at a price of \$25.00 per unit, resulting in gross proceeds of \$600.0 million. Of the common units issued, 4,000,000 units were purchased by an affiliate of IEP. Additionally, on January 30, 2013, the underwriters closed their option to purchase an additional 3,600,000 common units at a price of \$25.00 per unit resulting in gross proceeds of \$90.0 million. The common units, which are listed on the NYSE, began trading on January 17, 2013 under the symbol "CVRR." In connection with the Refining Partnership IPO, the Refining Partnership paid approximately \$32.5 million in underwriting fees and incurred approximately \$3.9 million of other offering costs.

Immediately following the Refining Partnership IPO and through May 19, 2013, CVR Energy indirectly owned approximately 81% of the total Refining Partnership common units and 100% of the Refining Partnership's general partner, which holds a non-economic general partner interest. Prior to the Refining Partnership IPO, CVR Energy owned 100% of the Refining Partnership and net income earned during this period was fully attributable to the Company.

On May 20, 2013, the Refining Partnership completed an underwritten offering (the "Underwritten Offering") by selling 12,000,000 common units to the public at a price of \$30.75 per unit. American Entertainment Properties Corporation ("AEPC"), an affiliate of IEP, also purchased an additional 2,000,000 common units at the public offering price in a privately negotiated transaction with a subsidiary of CVR Energy, which was completed on May 29, 2013. In connection with the Underwritten Offering, on June 10, 2013, the Refining Partnership sold an additional 1,209,236 common units to the public at a price of \$30.75 per unit in connection with a partial exercise by the underwriters of their option to purchase additional common units. The transactions described in this paragraph are collectively referred to as the "Transactions." In connection with the Transactions, the Refining Partnership paid approximately \$12.2 million in underwriting fees and approximately \$0.4 million in offering costs.

The Refining Partnership utilized net proceeds of approximately \$394.0 million from the Underwritten Offering (including the underwriters' option) to redeem 13,209,236 common units from CVR Refining Holdings, LLC ("CVR Refining Holdings"), an indirect wholly-owned subsidiary of CVR Energy. The net proceeds to a subsidiary of CVR Energy from the sale of 2,000,000 common units to AEPC were approximately \$61.5 million. The Refining Partnership did not receive any of the proceeds from the sale of common units by CVR Energy to AEPC.

Immediately following the closing of the Transactions and prior to June 30, 2014, public security holders held approximately 29% of the total Refining Partnership common units (including units owned by affiliates of IEP

representing 4% of total Refining Partnership common units), and CVR Refining Holdings held approximately 71% of the total Refining Partnership common units.

On May 28, 2013, CRLLC completed a registered public offering (the "Secondary Offering") whereby it sold 12,000,000 Nitrogen Fertilizer Partnership common units to the public at a price of \$25.15 per unit. The net proceeds to CRLLC from the Secondary Offering were approximately \$292.6 million, after deducting approximately \$9.2 million in underwriting discounts and commissions. The Nitrogen Fertilizer Partnership did not receive any of the proceeds from the sale of common units by CRLLC. In connection with the Secondary Offering, the Nitrogen Fertilizer Partnership incurred approximately \$0.5 million in offering costs.

Immediately subsequent to the closing of the Secondary Offering, public security holders held approximately 47% of the total Nitrogen Fertilizer Partnership common units, and CRLLC held approximately 53% of the total Nitrogen Fertilizer Partnership common units. In addition, CRLLC owns 100% of the Nitrogen Fertilizer Partnership's general partner, CVR GP, LLC, which only holds a non-economic general partner interest.

On June 30, 2014, the Refining Partnership completed a second underwritten offering (the "Second Underwritten Offering") by selling 6,500,000 common units to the public at a price of \$26.07 per unit. The Refining Partnership paid approximately \$5.3 million in underwriting fees and approximately \$0.5 million in offering costs. The Refining Partnership utilized net proceeds of approximately \$164.1 million from the Second Underwritten Offering to redeem 6,500,000 common units from CVR Refining Holdings. Immediately subsequent to the closing of the Second Underwritten Offering and through July 23, 2014, public security holders held approximately 33% of the total Refining Partnership common units, and CVR Refining Holdings held approximately 67% of the total Refining Partnership common units.

On July 24, 2014, the Refining Partnership sold an additional 589,100 common units to the public at a price of \$26.07 per unit in connection with the underwriters' exercise of their option to purchase additional common units. The Refining Partnership utilized net proceeds of approximately \$14.9 million from the underwriters' exercise of their option to purchase additional common units to redeem an equal amount of common units from CVR Refining Holdings. Additionally, on July 24, 2014, CVR Refining Holdings sold 385,900 common units to the public at a price of \$26.07 per unit in connection with the underwriters' exercise of their remaining option to purchase additional common units. CVR Refining Holdings received net proceeds of \$9.7 million.

On April 1, 2016, the Nitrogen Fertilizer Partnership completed the East Dubuque Merger as contemplated by the Agreement and Plan of Merger, dated as of August 9, 2015 (the "Merger Agreement"), whereby the Nitrogen Fertilizer Partnership acquired CVR Nitrogen and CVR Nitrogen GP. Pursuant to the East Dubuque Merger, the Nitrogen Fertilizer Partnership acquired the East Dubuque Facility.

Immediately following the closing of the East Dubuque Merger and as of December 31, 2016, public security holders held approximately 66% of total Nitrogen Fertilizer Partnership common units, and CRLLC held approximately 34% of total Nitrogen Fertilizer Partnership common units in addition to owning 100% of the Nitrogen Fertilizer Partnership's general partner.

On August 2, 2016, an affiliate of IEP sold 250,000 common units of CVR Refining. As a result of this transaction, CVR Refining GP and its affiliates collectively own 69.99% of CVR Refining's outstanding common units. Pursuant to CVR Refining's partnership agreement, in certain circumstances, CVR Refining GP has the right to purchase all, but not less than all, of CVR Refining common units held by unaffiliated unit holders at a price not less than their then-current market price, as calculated pursuant to the terms of such partnership agreement (the "Call Right"). Pursuant to the terms of the partnership agreement, because CVR Refining GP and its affiliates' holdings were reduced to less than 70.0% of CVR Refining's outstanding common units, the ownership threshold for the application of such Call Right was permanently reduced from 95% to 80%. Accordingly, if at any time CVR Refining GP and its affiliates own more than 80% of CVR Refining common units, it will have the right, but not the obligation, to exercise such Call Right.

As of December 31, 2016, public security holders held approximately 34% of the total Refining Partnership common units (including units owned by affiliates of IEP, representing 3.9% of the total Refining Partnership common units), and CVR Refining Holdings held approximately 66% of the total Refining Partnership common units, in addition to owning 100% of the Refining Partnership's general partner.

Organizational Structure and Related Ownership

The following chart illustrates our organizational structure and the organizational structure of the Refining Partnership and the

Nitrogen Fertilizer Partnership as of the date of this Report.

#### Petroleum Business

The petroleum business, operated by the Refining Partnership, includes a complex full coking medium-sour crude oil refinery in Coffeyville, Kansas with a rated capacity of 115,000 bpcd and a complex crude oil refinery in Wynnewood, Oklahoma with a rated capacity of 70,000 bpcd capable of processing 20,000 bpcd of light sour crude oil (within its rated capacity of 70,000 bpcd). The combined crude capacity represents approximately 22% of the region's refining capacity. The Coffeyville refinery located in southeast Kansas is approximately 100 miles from Cushing, Oklahoma ("Cushing"), a major crude oil trading and storage hub. The Wynnewood refinery is located approximately 65 miles south of Oklahoma City, Oklahoma and approximately 130 miles from Cushing.

For the year ended December 31, 2016, the Coffeyville refinery's product yield included gasoline (51%), diesel fuel (primarily ultra-low sulfur diesel) (42%), and pet coke and other refined products such as natural gas liquids ("NGL") (propane and butane), slurry, sulfur and gas oil (7%). The Wynnewood refinery's product yield included gasoline (53%), diesel fuel (primarily ultra-low sulfur diesel) (35%), asphalt (5%), jet fuel (4%) and other products (3%).

The petroleum business also includes the following auxiliary operating assets:

Crude Oil Gathering System. The petroleum business owns and operates a crude oil gathering system serving Kansas, Nebraska, Oklahoma, Missouri, Colorado and Texas. The system has field offices in Bartlesville and Pauls Valley, Oklahoma, Plainville and Winfield, Kansas and Denver, Colorado. The gathering system includes approximately 340 miles of active owned and leased pipelines and approximately 150 crude oil transports and associated storage facilities, which allows it to gather crude oils from independent crude oil producers. The crude oil gathering system has a gathering capacity of over 70,000 bpd. Gathered crude oil provides an attractive and competitive base supply of crude oil for the Coffeyville and Wynnewood refineries. During 2016, the petroleum business gathered an average of approximately 71,000 bpd. The petroleum business also has 35,000 bpd of contracted capacity on the Keystone and Spearhead pipelines that allow it to supply price-advantaged Canadian crude to its refineries. It also has contracted capacity on the Pony Express and White Cliffs pipelines, which both became in-service during 2015. Both the Pony Express and White Cliffs pipelines originate in Colorado and extend to Cushing.

Pipelines and Storage Tanks. The petroleum business owns a proprietary pipeline system capable of transporting approximately 170,000 bpd of crude oil from its Broome Station facility located near Caney, Kansas to its Coffeyville refinery. Crude oils sourced outside of the proprietary gathering system are delivered by common carrier pipelines into various terminals in Cushing, where they are blended and then delivered to the Broome Station tank farm via a pipeline owned by Plains Pipeline L.P. ("Plains"). The petroleum business owns approximately (i) 1.5 million barrels of crude oil storage capacity that supports the gathering system and the Coffeyville refinery, (ii) 0.9 million barrels of crude oil storage capacity at the Wynnewood refinery and (iii) 1.5 million barrels of crude oil storage capacity in Cushing. The petroleum business also leases additional crude oil storage capacity of approximately (iv) 2.2 million barrels in Cushing, (v) 0.2 million barrels in Duncan, Oklahoma and (vi) 0.1 million barrels at the Wynnewood refinery. In addition to crude oil storage, the petroleum business owns over 4.5 million barrels of combined refined products and feedstocks storage capacity.

Marketing and Product Supply. The petroleum business also has a rack marketing division supplying product through tanker trucks directly to customers located in geographic proximity to Coffeyville, Kansas and Wynnewood, Oklahoma and to customers at throughput terminals on Magellan Midstream Partners, L.P. ("Magellan") and NuStar Energy, LP's ("NuStar") refined products distribution systems.

The refineries' complexity allows the petroleum business to optimize the yields (the percentage of refined product that is produced from crude oil and other feedstocks) of higher value transportation fuels (gasoline and diesel). Complexity is a measure of a refinery's ability to process lower quality crude oil and feedstocks in an economic manner. The two

refineries' capacity weighted average complexity is 13.0. As a result of key investments in its refining assets and the addition of process units to comply with gasoline quality regulations, both of the refinery's complexities have increased. The Coffeyville refinery's complexity score is 13.3, and the Wynnewood refinery's complexity score is 12.6. The petroleum business' higher complexity provides it the flexibility to increase its refining margin over comparable refiners with lower complexities. The petroleum business has achieved significant increases in its refinery crude throughput rates over historical levels. As a result of the increasing complexities, the petroleum business is capable of processing a variety of crudes, including WTS, WTI, sweet and sour Canadian, and locally gathered crudes.

### Crude and Feedstock Supply

The Coffeyville refinery has the capability to process blends of a variety of crude oil ranging from heavy sour to light sweet crude oil. Currently, the Coffeyville refinery crude oil slate consists of a blend of mid-continent domestic grades and various Canadian medium and heavy sours, and it has recently introduced North Dakota Bakken and other similarly sourced crudes into its crude slate. While crude oil has historically constituted over 90% of the Coffeyville refinery's total throughput over the last five years, other feedstock inputs include normal butane, natural gasoline, alkylation feeds, naphtha, gas oil and vacuum tower bottoms.

The Wynnewood refinery has the capability to process blends of a variety of crude oil ranging from medium sour to light sweet crude oil, although isobutane, gasoline components, and normal butane are also typically used. Historically most of the Wynnewood refinery's crude oil has been acquired domestically, mainly from Texas and Oklahoma, but it can also access and process various light and medium Canadian grades.

Crude oil is supplied to the Coffeyville and Wynnewood refineries through the wholly-owned gathering system and by pipeline. The petroleum business has continued to increase the number of barrels of crude oil supplied through its crude oil gathering system in 2016 and it now has the capacity of supplying over 70,000 bpd of crude oil to the refineries. For the year ended December 31, 2016, the gathering system supplied approximately 41% and 34% of the Coffeyville and Wynnewood refineries' crude oil demand, respectively. Locally produced crude oils are delivered to the refineries at a discount to WTI, and although sometimes slightly heavier and more sour, offer good economics to the refineries. These crude oils are light and sweet enough to allow the refineries to blend higher percentages of lower cost crude oils such as heavy sour Canadian crude oil while maintaining their target medium sour blend with an API gravity of between 28 and 36 degrees and between 0.9% and 1.2% sulfur. Crude oils sourced outside of the proprietary gathering system are delivered to Cushing by various pipelines including the Keystone and Spearhead pipelines, and subsequently to the Broome Station facility via the Plains pipeline. In May 2015 and November 2015, the petroleum business' contracted capacity included the Pony Express and White Cliffs pipelines, respectively. From the Broome Station facility, crude oil is delivered to the Coffeyville refinery via the petroleum business' 170,000 bpd proprietary pipeline system. Crude oils are delivered to the Wynnewood refinery by three separate pipelines, and received into storage tanks at terminals located on or near the refinery.

For the year ended December 31, 2016, the Coffeyville refinery's crude oil supply blend was comprised of approximately 84.3% light sweet crude oil, 14.7% heavy sour crude oil and 1% light/medium sour crude oil. For the year ended December 31, 2016, the Wynnewood refinery's crude oil supply blend was comprised of approximately 98.2% light sweet crude oil and 1.8% light/medium sour crude oil. The light sweet crude oil supply blend includes its locally gathered crude oil.

The Coffeyville refinery is connected to the mid-continent natural gas liquids commercial hub of Conway, Kansas by the inbound Enterprise Pipeline Blue Line. Natural gas liquids feedstock supplies such as butanes and natural gasoline are sourced and delivered directly into the refinery. In addition, Coffeyville's proximity to Conway provides access to the natural gas liquid and liquid petroleum gas fractionation and storage capabilities as well as the commercial markets available at Conway.

#### Crude Oil Supply Agreement

On August 31, 2012, Coffeyville Resources Refining & Marketing, LLC ("CRRM") and Vitol Inc. ("Vitol") entered into an Amended and Restated Crude Oil Supply Agreement (as amended, the "Vitol Agreement"). Under the Vitol Agreement, Vitol supplies the petroleum business with crude oil and intermediation logistics, which helps the petroleum business to reduce its inventory position and mitigate crude oil pricing risk. The Vitol Agreement will automatically renew for successive one-year terms (each such term, a "Renewal Term") unless either party provides

the other with notice of nonrenewal at least 180 days prior to expiration of any Renewal Term. The Vitol Agreement currently extends through December 31, 2017.

**Refining Process** 

Coffeyville Refinery

The Coffeyville refinery is a 115,000 bpcd rated capacity facility with operations including fractionation, catalytic cracking, hydrotreating, reforming, coking, isomerization, alkylation, sulfur recovery and propane and butane recovery. The Coffeyville refinery benefits from significant refining unit redundancies, which include two crude oil distillation and vacuum towers, three sulfur recovery units and four hydrotreating units. These redundancies allow the Refining Partnership to continue to receive and process crude oil even if one tower requires unplanned maintenance without having to shut down the entire refinery in the case of a major unit turnaround. In addition, the Coffeyville refinery has a redundant supply of hydrogen pursuant to its feedstock and shared services agreement with a subsidiary of CVR Partners. The Coffeyville refinery has the

capability to process blends of a variety of crude oil ranging from heavy sour to light sweet crude oil into products such as gasoline, diesel, kerosene, propane, butane, sulfur, heavy oil and petroleum coke. During the year ended December 31, 2016, the Coffeyville refinery processed approximately 124,200 bpd and 8,500 bpd of crude oil and feedstocks and blendstocks, respectively. These throughput rates for 2016 reflect the second phase of the major scheduled turnaround completed in the first quarter of 2016.

### Wynnewood Refinery

The Wynnewood refinery is a 70,000 bpcd rated capacity facility with operations including fractionation, cracking, hydrotreating, hydrocracking, reforming, solvent deasphalting, alkylation, sulfur recovery and propane and butane recovery. Similar to the Coffeyville refinery, the Wynnewood refinery benefits from unit redundancies, including two crude oil distillation and vacuum towers and four hydrotreating units. The Wynnewood refinery has the capability to process blends of a variety of crude oil ranging from medium sour to light sweet crude oil (although isobutane, gasoline components, and normal butane are also typically used) into products such as gasoline, jet fuel, kerosene, propane, butane, propylene, sulfur, solvents, heavy oil and asphalt. During the year ended December 31, 2016, our Wynnewood refinery processed approximately 73,900 bpd and 2,600 bpd of crude oil and feedstocks and blendstocks, respectively.

#### Marketing and Distribution

The petroleum business focuses its Coffeyville petroleum product marketing efforts in the central mid-continent area, because of its relative proximity to the refinery and pipeline access. Coffeyville also has access to the Rocky Mountain area. Coffeyville engages in rack marketing, which is the supply of product through tanker trucks directly to customers located in close geographic proximity to the refinery and to customers at throughput terminals on the refined products distribution systems of Magellan and NuStar. Coffeyville also makes bulk sales (sales into third-party pipelines) into the mid-continent markets and other destinations utilizing the product pipeline networks owned by Magellan, Enterprise and NuStar. The outbound Enterprise Pipeline Red Line provides Coffeyville with access to the NuStar Refined Products Pipeline system. This allows gasoline and ULSD product sales from Kansas up into North Dakota.

The Wynnewood refinery ships its finished product via pipeline, railcar, and truck. It focuses its efforts in the southern portion of the Magellan system which covers all of Oklahoma, parts of Arkansas as well as eastern Missouri, and all other Magellan terminals. The pipeline system is also able to flow in the opposite direction, providing access to Texas markets as well as some adjoining states with pipeline connections. Wynnewood also sells jet fuel to the U.S. Department of Defense via its segregated truck rack and can offer asphalts, solvents and other specialty products via both truck and rail.

#### Customers

Customers for the refined petroleum products primarily include retailers, railroads, and farm cooperatives and other refiners/marketers in Group 3 of the PADD II region because of their relative proximity to the refineries and pipeline access. The petroleum business sells bulk products to long-standing customers at spot market prices based on a Group 3 basis differential to prices quoted on the New York Mercantile Exchange ("NYMEX"), which are reported by industry market-related indices such as Platts and Oil Price Information Service.

The petroleum business also has a rack marketing business supplying product through tanker trucks directly to customers located in proximity to the Coffeyville and Wynnewood refineries, as well as to customers located at throughput terminals on refined products distribution systems run by Magellan and NuStar. Rack sales are at posted prices that are influenced by competitor pricing and Group 3 spot market differentials. Additionally, the Wynnewood

refinery supplies jet fuel to the U.S. Department of Defense. For the year ended December 31, 2016, the two largest customers accounted for approximately 15% and 10% of the petroleum business net sales and approximately 54% of the petroleum business net sales were made to its ten largest customers.

# Competition

The petroleum business competes primarily on the basis of price, reliability of supply, availability of multiple grades of products and location. The principal competitive factors affecting its refining operations are cost of crude oil and other feedstock costs, refinery complexity, refinery efficiency, refinery product mix and product distribution and transportation costs. The location of the refineries provides the petroleum business with a reliable supply of crude oil and a transportation cost advantage over its competitors. The petroleum business primarily competes against five refineries operated in the mid-continent region. In addition to these refineries, the refineries compete against trading companies, as well as other refineries located outside the region that are linked to the mid-continent market through an extensive product pipeline system. These competitors

include refineries located near the Gulf Coast and the Texas panhandle region. The petroleum business refinery competition also includes branded, integrated and independent oil refining companies, such as Phillips 66, HollyFrontier, CHS, Valero and Flint Hills Resources.

#### Seasonality

The petroleum business experiences seasonal effects as demand for gasoline products is generally higher during the summer months than during the winter months due to seasonal increases in highway traffic and road construction work. Demand for diesel fuel is higher during the planting and harvesting seasons. As a result, the petroleum business' results of operations for the first and fourth calendar quarters are generally lower compared to its results for the second and third calendar quarters. In addition, unseasonably cool weather in the summer months and/or unseasonably warm weather in the winter months in the markets in which the petroleum business sells its petroleum products can impact the demand for gasoline and diesel fuel. The demand for asphalt is also seasonal and is generally higher during the months of March through October.

#### Nitrogen Fertilizer Business

The nitrogen fertilizer business, operated by the Nitrogen Fertilizer Partnership, consists of two nitrogen fertilizer manufacturing facilities which are located in Coffeyville, Kansas and East Dubuque, Illinois. The nitrogen fertilizer business produces and distributes nitrogen fertilizer products, which are used primarily by farmers to improve the yield and quality of their crops. The principal products are UAN and ammonia, and all products are sold on a wholesale basis. The Coffeyville Fertilizer Facility includes a 1,300 ton-per-day capacity ammonia unit, a 3,000 ton-per-day capacity UAN unit and a gasifier complex having a capacity of 89 million standard cubic feet per day of hydrogen. The Coffeyville Fertilizer Facility is the only nitrogen fertilizer plant in North America that utilizes a pet coke gasification process to produce nitrogen fertilizer. The East Dubuque Facility, which includes a 1,075 ton-per-day capacity ammonia unit and a 1,100 ton-per-day capacity UAN unit, has the flexibility to vary its product mix enabling the East Dubuque Facility to upgrade a portion of its ammonia production into varying amounts of UAN, nitric acid and liquid and granulated urea each season, depending on market demand, pricing and storage availability. The East Dubuque Facility's product sales are heavily weighted toward sales of ammonia and UAN.

#### Raw Material Supply

#### Coffeyville Fertilizer Facility

The Coffeyville Fertilizer Facility was built in 2000 and uses a gasification process to convert pet coke to high purity hydrogen for subsequent conversion to ammonia. The Coffeyville nitrogen fertilizer facility's pet coke gasification process results in a significantly higher percentage of fixed costs than a natural gas-based fertilizer plant. During the past five years, over 70% of the Coffeyville nitrogen fertilizer facility's pet coke requirements on average were supplied by CVR Refining's adjacent crude oil refinery pursuant to a renewable long-term agreement. Historically the Coffeyville nitrogen fertilizer plant has obtained the remainder of its pet coke requirements from third parties such as other Midwestern refineries or pet coke brokers at spot-prices. The Nitrogen Fertilizer Partnership is party to a pet coke supply agreement with HollyFrontier Corporation. The term of this agreement expires in December 2017 and historically has been renewed annually. If necessary, there are other pet coke suppliers and the gasification process can be modified to operate on coal as an alternative, which provides an additional raw material source. There are significant supplies of coal within a 60-mile radius of the Coffeyville nitrogen fertilizer plant.

The Coffeyville Fertilizer Facility also purchased some of its hydrogen from the Coffeyville Refinery, pursuant to a feedstock and shared services agreement having an initial term that ends in 2027, subject to renewal. Effective January 2017, CRRM and CRNF entered into a hydrogen purchase and sale agreement, pursuant to which, CRRM agrees to

sell and deliver a committed hydrogen volume of 90,000 mscf per month, and CRNF agrees to purchase and receive the committed volume. CRNF also has the option to purchase excess volume of up to 60,000 mscf per month, or more upon mutual agreement, from CRRM, if available for purchase. The agreement has an initial term of 20 years and will be automatically extended following the initial term for additional successive five-year renewal term unless either party gives 180 days written notice.

The pet coke gasification process is licensed from an affiliate of General Electric Company. The license grants the Coffeyville Fertilizer Facility perpetual rights to use the pet coke gasification process on specified terms and conditions, and the license is fully paid.

Linde LLC ("Linde") owns, operates, and maintains the air separation plant that provides contract volumes of oxygen, nitrogen, and compressed dry air to the Coffeyville Fertilizer Facility for a monthly fee. The Coffeyville Fertilizer Facility provides and pays for all utilities required for operation of the air separation plant. The air separation plant has not experienced

any long-term operating problems; however, CVR Energy maintains contingent business interruption insurance with a \$200.0 million limit for any interruption caused by physical damage to the air separation plant that results in a loss of production from an insured peril.

Although the Coffeyville Fertilizer Facility has its own boiler that is used to create start-up steam, it also has the ability to import start-up steam from the adjacent Coffeyville crude oil refinery and then export steam back to the crude oil refinery once all units in the Coffeyville Fertilizer Facility are in service. The Coffeyville Fertilizer Facility entered into a feedstock and shared services agreement with a subsidiary of CVR Refining, which regulates, among other things, the import and export of start-up steam between the adjacent Coffeyville crude oil refinery and the Coffeyville Fertilizer Facility. Monthly charges and credits are recorded with the steam valued at the natural gas price for the month.

### East Dubuque Facility

The East Dubuque Facility uses natural gas to produce nitrogen fertilizer, primarily ammonia and UAN. The East Dubuque Facility is able to purchase natural gas at competitive prices due to the plant's connection to the Northern Natural Gas interstate pipeline system, which is within one mile of the facility, and the ANR Pipeline Company pipeline. The pipelines are connected to Nicor Inc.'s distribution system at the Chicago Citygate receipt point and at the Hampshire interconnect, respectively, from which natural gas is transported to the facility. Though the East Dubuque Facility does not typically purchase natural gas for the purpose of resale, it may occasionally sell natural gas when purchase commitments exceed production requirements and/or storage capacities, or when the margin from selling natural gas significantly exceeds the margin from producing additional ammonia. The East Dubuque nitrogen Fertilizer Facility's receipt point locations and access to the Chicago Citygate receipt point has allowed it to obtain relatively favorable natural gas prices for sales of excess natural gas due to its proximity to the stable residential demand for the commodity in Chicago, Illinois.

Changes in the levels of natural gas prices and market prices of nitrogen-based products can materially affect the East Dubuque Facility's financial position and results of operations. Natural gas prices in the United States have experienced significant fluctuations over the last several years, increasing substantially in 2008 and subsequently declining to the current lower levels. Several recent discoveries of large natural gas deposits in North America, combined with advances in technology for natural gas production have caused large increases in the estimates of available natural gas reserves and production in the United States, contributing to significant reductions in the market price of natural gas. From time to time, the nitrogen fertilizer business enters into forward contracts with fixed delivery prices to purchase portions of its natural gas requirements. As of December 31, 2016, the nitrogen business segment had commitments to purchase 1.5 million MMBtus of natural gas supply for use in its East Dubuque Facility in January and February 2017 at a weighted average rate per MMBtu of \$3.46, exclusive of transportation cost.

#### Nitrogen Production Process

The Coffeyville nitrogen fertilizer plant was built in 2000 with two separate gasifiers to provide redundancy and reliability. The plant, which uses a gasification process to convert pet coke to high purity hydrogen for subsequent conversion to ammonia, is capable of producing approximately 1,300 tons per day of ammonia. Substantially all of the ammonia produced is converted to approximately 3,000 tons per day of UAN, which has historically commanded a premium price over ammonia. Typically, approximately 0.41 tons of ammonia is required to produce one ton of UAN. The plant completed a significant two-year plant expansion in February 2013, which increased UAN production capacity by 400,000 tons or approximately 50%, per year. The expanded Coffeyville Fertilizer Facility was operating at full rates since the end of the first quarter of 2013.

The East Dubuque Facility was built in 1965 and expanded in 2014 to manufacture natural-gas based nitrogen fertilizer products. The plant is capable of producing 1,075 tons per day of ammonia and 1,100 tons per day of UAN and has the flexibility to vary its product mix.

In 2016, the nitrogen fertilizer business produced, from both the Coffeyville Fertilizer Facility and East Dubuque Facility, a total of 1.2 million tons of UAN and 0.7 million tons of ammonia.

Distribution, Sales and Marketing

The primary geographic markets for the nitrogen fertilizer business' fertilizer products are Illinois, Kansas, Nebraska, Iowa and Texas. The nitrogen fertilizer business primarily markets the UAN products to agricultural customers and the ammonia products to agricultural and industrial customers.

UAN and ammonia are distributed by truck or by railcar. If delivered by truck, products are sold on a freight-on-board basis, and freight is normally arranged by the customer. The nitrogen fertilizer business leases and owns a fleet of railcars for use in product delivery, and, if delivered by railcar, the products are most commonly sold on a FOB destination point basis and the nitrogen fertilizer business typically arranges the freight. The nitrogen fertilizer business incurs costs to maintain and repair its railcar fleet that include expenses related to regulatory inspections and repairs. For example, many of the nitrogen fertilizer business' railcars require specific regulatory inspections and repairs due on ten-year intervals. The extent and frequency of railcar fleet maintenance and repair costs are generally expected to change based partially on when regulatory inspections and repairs are due for its railcars under the relevant regulations.

The nitrogen fertilizer business's fertilizer products leave the Coffeyville Fertilizer Facility either in railcars for destinations located principally on the Union Pacific Railroad or in trucks for direct shipment to customers. The nitrogen fertilizer business does not currently incur significant intermediate transfer, storage, barge freight or pipeline freight charges; however, it does incur costs to maintain and repair our railcar fleet as discussed above.

The East Dubuque Facility is located in northwest Illinois, in the corn belt. The East Dubuque nitrogen fertilizer facility primarily sells its product to customers located within 200 miles of the facility. In most instances, customers take delivery of nitrogen products at the East Dubuque nitrogen fertilizer facility and arrange and pay to transport them to their final destinations by truck. The East Dubuque nitrogen fertilizer facility has direct access to a barge dock on the Mississippi River as well as a nearby rail spur serviced by the Canadian National Railway Company.

The heavy in-season demand periods are spring and fall in the corn belt and summer in the wheat belt. The corn belt is the primary corn producing region of the United States, which includes Illinois, Indiana, Iowa, Minnesota, Missouri, Nebraska, Ohio and Wisconsin. The wheat belt is the primary wheat producing region of the United States, which includes Kansas, North Dakota, Oklahoma, South Dakota and Texas. Most of the industrial sales are contractual agreements.

The nitrogen fertilizer business has the capacity to store approximately 160,000 tons of UAN and 80,000 tons of ammonia. The nitrogen fertilizer's business storage tanks are located primarily at its two production facilities. Inventories are often allowed to accumulate to allow customers to take delivery to meet the seasonal demand.

The nitrogen fertilizer business offers agricultural products on a spot, forward or prepay basis and often uses forward sales of fertilizer products to optimize its asset utilization, planning process and production scheduling. These sales are made by offering customers the opportunity to purchase product on a forward basis at prices and delivery dates that it proposes. The nitrogen fertilizer business uses this program to varying degrees during the year and between years depending on market conditions. Fixing the selling prices of nitrogen fertilizer products months in advance of their ultimate delivery to customers typically causes the nitrogen fertilizer business reported selling prices and margins to differ from spot market prices and margins available at the time of shipment. Cash received as a result of prepayments is recognized as deferred revenue on the Consolidated Balance Sheet upon receipt, and revenue and resultant net income and EBITDA are recorded as the product is delivered.

#### Customers

The nitrogen fertilizer business sells UAN products to retailers and distributors. In addition, it sells ammonia to agricultural and industrial customers. Given the nature of its business, and consistent with industry practice, the nitrogen fertilizer business does not have long-term minimum purchase contracts with its UAN and ammonia customers.

For the year ended December 31, 2016, the top five customers in the aggregate represented 32% of the nitrogen fertilizer business' net sales. The nitrogen fertilizer business' top two customers on a consolidated basis each accounted for approximately 10% of the nitrogen fertilizer business' net sales. While it does have high concentration of customers, the nitrogen fertilizer business does not believe that the loss of any single customer would have a material adverse effect on its results of operations, financial condition and ability to make cash distributions.

### Competition

The nitrogen fertilizer business has experienced and expect to continue to meet significant levels of competition from current and potential competitors, many of whom have significantly greater financial and other resources. Competition in the nitrogen fertilizer industry is dominated by price considerations. However, during the spring and fall application seasons, farming activities intensify and delivery capacity is a significant competitive factor. The nitrogen fertilizer business maintains a large fleet of leased and owned railcars and seasonally adjusts inventory to enhance its manufacturing and distribution operations.

The nitrogen fertilizer business' major competitors include Agrium, Inc.; CF Industries Holdings, Inc., including its majority owned subsidiary Terra Nitrogen Company, LP.; Koch Nitrogen Company, LLC; and Potash Corporation of Saskatchewan, Inc. Domestic competition is intense due to customers' sophisticated buying tendencies and competitor strategies that focus on cost and service. The nitrogen fertilizer business also encounters competition from producers of fertilizer products manufactured in foreign countries. In certain cases, foreign producers of fertilizer who export to the United States may be subsidized by their respective governments.

#### Seasonality

Because the nitrogen fertilizer business primarily sells agricultural commodity products, its business is exposed to seasonal fluctuations in demand for nitrogen fertilizer products in the agricultural industry. As a result, the nitrogen fertilizer business typically generates greater net sales in the first half of each calendar year, which is referred to as the planting season, and its net sales tend to be lower during the second half of each calendar year, which is referred to as the fill season. In addition, the demand for fertilizers is affected by the aggregate crop planting decisions and fertilizer application rate decisions of individual farmers who make planting decisions based largely on the prospective profitability of a harvest. The specific varieties and amounts of fertilizer they apply depend on factors like crop prices, the farmers' current liquidity, soil conditions, weather patterns and the types of crops planted.

### **Environmental Matters**

The petroleum and nitrogen fertilizer businesses are subject to extensive and frequently changing federal, state and local, environmental and health and safety laws and regulations governing the emission and release of hazardous substances into the environment, the treatment and discharge of waste water, the storage, handling, use and transportation of petroleum and nitrogen products, and the characteristics and composition of gasoline and diesel fuels. These laws and regulations, their underlying regulatory requirements and the enforcement thereof impact the petroleum business and operations and the nitrogen fertilizer business and operations by imposing:

restrictions on operations or the need to install enhanced or additional controls;

the need to obtain and comply with permits, licenses and authorizations;

requirements for the investigation and remediation of contaminated soil and groundwater at current and former facilities (if any) and liability for off-site waste disposal locations; and

specifications for the products marketed by the petroleum business and the nitrogen fertilizer business, primarily gasoline, diesel fuel, UAN and ammonia.

Our operations require numerous permits, licenses and authorizations. Failure to comply with these permits or environmental laws and regulations could result in fines, penalties or other sanctions or a revocation of our permits. In addition, the laws and regulations to which we are subject are often evolving and many of them have become more stringent or have become subject to more stringent interpretation or enforcement by federal or state agencies. The ultimate impact on our business of complying with evolving laws and regulations is not always clearly known or determinable due in part to the fact that our operations may change over time and certain implementing regulations for laws, such as the federal Clean Air Act, have not yet been finalized, are under governmental or judicial review or are being revised. These laws and regulations could result in increased capital, operating and compliance costs.

The principal environmental risks associated with our businesses are outlined below with additional details included in Part I, Item 1A, Risk Factors and Part II, Item 8, Note 14 ("Commitments and Contingencies") of this Report.

#### The Federal Clean Air Act

The federal Clean Air Act and its implementing regulations, as well as the corresponding state laws and regulations that regulate emissions of pollutants into the air, affect the petroleum business and the nitrogen fertilizer business both directly and indirectly. Direct impacts may occur through the federal Clean Air Act's permitting requirements and/or emission control requirements relating to specific air pollutants, as well as the requirement to maintain a risk management program to help prevent accidental releases of certain regulated substances. The federal Clean Air Act indirectly affects the petroleum business and the nitrogen fertilizer business by extensively regulating the air emissions of sulfur dioxide ("SO<sub>2</sub>"), volatile organic

compounds, nitrogen oxides and other substances, including those emitted by mobile sources, which are direct or indirect users of our products.

Some or all of the standards promulgated pursuant to the federal Clean Air Act, or any future promulgations of standards, may require the installation of controls or changes to the petroleum business or the nitrogen fertilizer facilities in order to comply. If new controls or changes to operations are needed, the costs could be material. These new requirements, other requirements of the federal Clean Air Act, or other presently existing or future environmental regulations could cause us to expend substantial amounts to comply and/or permit our facilities to produce products that meet applicable requirements.

The regulation of air emissions under the federal Clean Air Act requires that we obtain various construction and operating permits and incur capital expenditures for the installation of certain air pollution control devices at the petroleum and nitrogen fertilizer operations when regulations change or we add new equipment or modify existing equipment. Various regulations specific to our operations have been implemented, such as National Emission Standard for Hazardous Air Pollutants ("NESHAP"), New Source Performance Standards ("NSPS") and New Source Review/Prevention of Significant Deterioration ("PSD"). We have incurred, and may be required to make, substantial capital expenditures to attain or maintain compliance with these and other air emission regulations that have been promulgated or may be promulgated or revised in the future.

On September 12, 2012, the U.S. Environmental Protection Agency (the "EPA") published in the Federal Register final revisions to its NSPS for process heaters and flares at petroleum refineries. The EPA originally issued final standards in June 2008, but the portions of the rule relating to process heaters and flares were stayed pending reconsideration of certain provisions. The final standards regulate emissions of nitrogen oxide from process heaters and emissions of SO<sub>2</sub> from flares, as well as require certain work practice and monitoring standards for flares. We do not believe that the costs of complying with the rule will be material.

On August 14, 2012, the EPA sent both the Wynnewood and Coffeyville refineries letters regarding the EPA's 2012 enforcement alert entitled EPA Enforcement Targets Flaring Efficiency Violations signaling the agency's intention to begin a national enforcement program to conduct compliance evaluations and take enforcement actions against petroleum refining companies that operate flares that are not in compliance with standards articulated in the Enforcement Alert. The Enforcement Alert identified new standards that refiners are required to meet for flaring combustion efficiency. The EPA entered into consent decrees with several refining companies. Because the EPA has not specifically told us that our operations are not in compliance, we cannot say with certainty whether or when we may become an enforcement target under this initiative.

Refer to Part II, Item 8, Note 14 ("Commitments and Contingencies") of this Report for further discussion of recent environmental matters related to the Clean Air Act including the "Flood, Crude Oil Discharge and Insurance" and certain "Environmental, Health and Safety ("EHS") Matters," such as the "Coffeyville Second Consent Decree," "Wynnewood Clean Air Act Compliance" and other compliance evaluations.

#### The Federal Clean Water Act

The federal Clean Water Act ("CWA") and its implementing regulations, as well as the corresponding state laws and regulations that regulate the discharge of pollutants into the water, affect the petroleum business and the nitrogen fertilizer business. Direct impacts occur through the CWA's permitting requirements, which establish discharge limitations based on technology standards, water quality standards, and restrictions on the total maximum daily load of pollutants that may be released to a particular water body based on its use. In addition, water resources are becoming and in the future may become scarcer, and many refiners, including CRRM and WRC, are subject to restrictions on their ability to use water in the event of low availability conditions. Both CRRM and WRC have

contracts in place to receive water during certain water shortage conditions, but these conditions could change over time if water becomes scarce.

#### **Release Reporting**

The release of hazardous substances or extremely hazardous substances into the environment is subject to release reporting requirements under federal and state environmental laws. Our facilities periodically experience releases of hazardous substances and extremely hazardous substances. For example, the nitrogen fertilizer facility periodically experiences minor releases of hazardous and extremely hazardous substances from its equipment. Our facilities periodically have excess emission events from flaring and other planned and unplanned start-up, shutdown and malfunction events. Such releases are reported to the EPA and relevant state and local agencies. From time to time, the EPA has conducted inspections and issued information requests to us with respect to our compliance with release reporting requirements under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") and the Emergency Planning and Community Right-to-Know Act. If we fail to timely or properly report a release, or if the release violates the law or our permits, it could cause us to become the

subject of a governmental enforcement action or third-party claims. Government enforcement or third-party claims relating to releases of hazardous or extremely hazardous substances could result in significant expenditures and liability.

#### **Fuel Regulations**

Tier 2, Low Sulfur Fuels. In February 2000, the EPA promulgated the Tier 2 Motor Vehicle Emission Standards Final Rule for all passenger vehicles, establishing standards for sulfur content in gasoline that were required to be met by 2006. In addition, in January 2001, the EPA promulgated its on-road diesel regulations, which required a 97% reduction in the sulfur content of diesel fuel sold for highway use by June 1, 2006, with full compliance by January 1, 2010. The refineries are in compliance with the EPA's low sulfur gasoline and diesel fuel standards.

Tier 3. In April 2014, the EPA promulgated the Tier 3 Motor Vehicle Emission and Fuel Standards, which will require that gasoline contain no more than ten parts per million of sulfur on an annual average basis. Refineries must be in compliance with the more stringent emission standards by January 1, 2017; however, compliance with the rule is extended until January 1, 2020 for approved small volume refineries and small refiners. In March 2015, the EPA approved the Wynnewood refinery's application requesting "small volume refinery" status; therefore, it's compliance deadline is January 1, 2020. It is not anticipated that the refineries will require additional controls or capital expenditures to meet the anticipated new standard.

### Mobile Source Air Toxic II Emissions

In 2007, the EPA promulgated the Mobile Source Air Toxic II ("MSAT II") rule that requires the reduction of benzene in gasoline by 2011. The MSAT II projects for CRRM and WRC were completed within the compliance deadline of November 1, 2014. The projects were completed at a total cost of approximately \$48.3 million and \$89.0 million, excluding capitalized interest, by CRRM and WRC, respectively.

#### Renewable Fuel Standards

Refer to Part I, Item 1A, Risk Factors, If sufficient RINs are unavailable for purchase, if the petroleum business has to pay a significantly higher price for RINs or if the petroleum business is otherwise unable to meet the EPA's RFS mandates, the petroleum business' financial condition and results of operations could be materially adversely affected, and Part II, Item 8, Note 14 ("Commitments and Contingencies"), "Environmental, Health and Safety ("EHS") Matters" of this Report for further discussion of the "Renewable Fuel Standards."

#### Greenhouse Gas Emissions

Refer to Part I, Item 1A, Risk Factors, Climate change laws and regulations could have a material adverse effect on our results of operations, financial condition and cash flows, of this Report for further discussion of the Greenhouse Gas ("GHG") Emissions regulations.

#### RCRA

Our operations are subject to the Resource Conservation and Recovery Act ("RCRA") requirements for the generation, transportation, treatment, storage and disposal of solid and hazardous wastes. When feasible, RCRA-regulated materials are recycled instead of being disposed of on-site or off-site. RCRA establishes standards for the management of solid and hazardous wastes. Besides governing current waste disposal practices, RCRA also addresses the environmental effects of certain past waste disposal practices, the recycling of wastes and the regulation of underground storage tanks containing regulated substances. Refer to Part II, Item 8, Note 14 ("Commitments and

Contingencies"), "Environmental, Health and Safety ("EHS") Matters" for further discussion of "RCRA Compliance Matters."

Waste Management. There are two closed hazardous waste units at the Coffeyville refinery and eight other hazardous waste units in the process of being closed pending state agency approval. There is one closed hazardous waste unit and one active hazardous waste storage tank at the Wynnewood refinery. In addition, one closed interim status hazardous waste land farm located at the now-closed Phillipsburg terminal is under long-term post closure care.

Impacts of Past Manufacturing. The 2004 Consent Decree that CRRM signed with the EPA and the Kansas Department of Health and Environment (the "KDHE") required us to assume two RCRA corrective action orders issued to Farmland, the prior owner of the Coffeyville refinery. We are subject to a 1994 EPA administrative order related to investigation of possible past releases of hazardous materials to the environment at the Coffeyville refinery. In accordance with the order, we have documented existing soil and groundwater conditions, which required investigation and interim remediation projects. In

December 2016, the Coffeyville refinery submitted a post-closure permit application to KDHE to complete closure of former hazardous waste management units at the Coffeyville refinery and perform corrective action at the site. The now-closed Phillipsburg terminal is subject to a 1996 EPA administrative order related to investigation of releases of hazardous materials to the environment at the Phillipsburg terminal, which operated as a refinery until 1991. The Phillipsburg terminal continues to implement interim measures to address the investigation's findings. Further remediation, if ordered necessary by EPA or the state, will be based on the results of the investigation. The Wynnewood refinery operates under a RCRA permit. A RCRA facility investigation has been completed in accordance with the terms of the permit. Based on the facility investigation and other available information, Oklahoma Department of Environmental Quality ("ODEQ") and WRC have entered into a Consent Order requiring further investigations of groundwater conditions and enhancements of existing remediation systems. The Wynnewood refinery has completed the groundwater investigation and ODEQ has approved our corrective action recommendations.

The anticipated investigation and remediation costs through 2020 were estimated, as of December 31, 2016, to be as follows:

Facility	Site Inves Costs	Capital stigation Costs	Tot Ope Ma Cos Thr 202	al eration & intenance sts rough .0	Total Estimated Costs Through 2020
	(in m	illions)			
Coffeyville Refinery	\$0.2	\$ -	-\$	1.0	\$ 1.2
Phillipsburg Terminal	0.5		0.7		1.2
Wynnewood Refinery	0.2		1.1		1.3
Total Estimated Costs	\$0.9	\$ -	-\$	2.8	\$ 3.7

These estimates are based on current information and could increase or decrease as additional information becomes available through our ongoing remediation and investigation activities. At this point, we have estimated that, over ten years starting in 2017, we will spend approximately \$6.5 million to remedy impacts from past manufacturing activity at the Coffeyville refinery and to address existing soil and groundwater contamination at the now-closed Phillipsburg terminal and at the Wynnewood refinery. It is possible that additional costs will be required after this ten year period. We spent approximately \$2.1 million in 2016 associated with related remediation.

Financial Assurance. We are required under the 2004 Consent Decree to establish financial assurance to secure the projected clean-up costs posed by the Coffeyville and the now-closed Phillipsburg facilities in the event we fail to fulfill our clean-up obligations. In accordance with the 2004 Consent Decree as modified by a 2010 agreement between CRRM, Coffeyville Resources Terminal, LLC, the EPA and the KDHE, this financial assurance is currently provided by a bond in the amount of \$3.6 million for clean-up obligations at the Phillipsburg terminal and a letter of credit in the amount of \$0.2 million for estimated costs to close regulated hazardous waste management units at the Coffeyville refinery. Additional self-funded financial assurance of approximately \$4.9 million and \$2.5 million is required by our post-closure care obligations and the 2004 Consent Decree for clean-up costs at the Coffeyville refinery and Phillipsburg terminal, respectively. The \$3.6 million bond amount is reduced each year based on actual expenditures for corrective actions and the letter of credit and the self-funded mechanisms are re-evaluated and adjusted on an annual basis. Current RCRA financial assurance requirements for the Wynnewood refinery total \$0.2 million for hazardous waste storage tank closure and post-closure monitoring of a closed storm water retention pond.

#### **Environmental Remediation**

Under the CERCLA, RCRA, and related state laws, certain persons may be liable for the release or threatened release of hazardous substances. These persons include the current owner or operator of property where a release or threatened release occurred, any persons who owned or operated the property when the release occurred, and any persons who disposed of, or arranged for the transportation or disposal of, hazardous substances at a contaminated property. Liability under CERCLA is strict, and under certain circumstances, joint and several, so that any responsible party may be held liable for the entire cost of investigating and remediating the release of hazardous substances. Similarly, the Oil Pollution Act of 1990 generally subjects owners and operators of facilities to strict, joint and several liability for all containment and clean-up costs, natural resource damages, and potential governmental oversight costs arising from oil spills into the waters of the United States, which has been broadly interpreted to include most water bodies including intermittent streams.

As is the case with all companies engaged in similar industries, we face potential exposure from future claims and lawsuits involving environmental matters, including soil and water contamination, personal injury or property damage allegedly caused by crude oil or hazardous substances that we manufactured, handled, used, stored, transported, spilled, disposed of or released. We cannot assure you that we will not become involved in future proceedings related to our release of hazardous or extremely hazardous substances or crude oil or that, if we were held responsible for damages in any existing or future proceedings, such costs would be covered by insurance or would not be material. Refer to Part II, Item 8, Note 14 ("Commitments and Contingencies"), "Flood, Crude Oil Discharge and Insurance" of this Report for discussion of the environmental remediation associated with the discharge of crude oil on July 1, 2007 at the Coffeyville refinery.

#### Environmental Insurance

We are covered by a site pollution legal liability insurance policy with an aggregate limit of \$51.0 million per pollution condition, subject to a self-insured retention of \$1.0 million. The policy includes business interruption coverage, subject to a 5-day waiting period deductible. This insurance expires on March 1, 2017 and is expected to be renewed without any material changes in terms. The policy insures any location owned, leased or rented or operated by the Company, including the Coffeyville refinery, the Wynnewood refinery and the nitrogen fertilizer facility. The policy insures certain pollution conditions at or migrating from a covered location, certain waste transportation and disposal activities and business interruption.

In addition to the site pollution legal liability insurance policy, we maintain umbrella and excess casualty insurance policies having an aggregate and occurrence limit of \$300.0 million, subject to a self-insured retention and deductible of \$5.0 million. This insurance provides coverage due to named perils for claims involving pollutants where the discharge is sudden and accidental and first commenced at a specific day and time during the policy period. The casualty insurance policies, including umbrella and excess policies, expire on March 1, 2017 and are expected to be renewed or replaced by insurance policies containing materially equivalent sudden and accidental pollution coverage with no reduction in limits.

The site pollution legal liability policy and the pollution coverage provided in the casualty insurance policies contain discovery requirements, reporting requirements, exclusions, definitions, conditions and limitations that could apply to a particular pollution claim, and there can be no assurance such claim will be adequately insured for all potential damages.

#### Safety, Health and Security Matters

We are subject to a number of federal and state laws and regulations related to safety, including the Occupational Safety and Health Act ("OSHA") and comparable state statutes, the purpose of which are to protect the health and safety of workers. We also are subject to OSHA Process Safety Management regulations, which are designed to prevent or minimize the consequences of catastrophic releases of toxic, reactive, flammable or explosive chemicals.

We operate a comprehensive safety, health and security program, with participation by employees at all levels of the organization. We have developed comprehensive safety programs aimed at preventing OSHA recordable incidents. Despite our efforts to achieve excellence in our safety and health performance, there can be no assurances that there will not be accidents resulting in injuries or even fatalities. We routinely audit our programs and consider improvements in our management systems.

The Wynnewood refinery has been the subject of a number of OSHA inspections since 2006. As a result of these inspections, the Wynnewood refinery has entered into four OSHA settlement agreements in 2008, pursuant to which it has agreed to undertake certain studies, conduct abatement activities, and revise and enhance certain OSHA

compliance programs. The remaining costs associated with implementing these studies, abatement activities and program revisions are not expected to exceed \$1.0 million.

Refer to Part II, Item 8, Note 14 ("Commitments and Contingencies"), "Wynnewood Refinery Incident" of this Report for further discussion of OSHA matters related to the Wynnewood refinery boiler explosion.

#### Employees

As of December 31, 2016, 968 employees were employed by the petroleum business, 299 employees were employed by the nitrogen fertilizer business and 220 employees were employed by the Company at our offices in Sugar Land, Texas and Kansas City, Kansas. The Nitrogen Fertilizer Partnership and the Refining Partnership each relies on the services of employees of CVR Energy and its subsidiaries pursuant to services agreements between each partnership, its general partner and CVR Energy. As of December 31, 2016, all these employees are covered by health insurance, disability and retirement plans established by the Company. We believe that our relationship with our employees is good.

As of December 31, 2016, (i) the Coffeyville refinery employed 327 of the petroleum business' employees, about 70% of whom are covered by a collective bargaining agreement with five unions of the Metal Trades Department of the AFL-CIO ("Metal Trade Unions"), which expires in March 2019, (ii) the petroleum business had 268 employees who work in crude transportation, about 32% of whom are covered by a collective bargaining agreement with the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, AFL-CIO-CLC ("United Steelworkers"), which expires in March 2019 and automatically renews on an annual basis thereafter unless a written notice is received sixty days in advance of the relevant expiration date, and (iii) the Wynnewood refinery employed 323 of the petroleum business' employees, about 58% of whom were represented by the International Union of Operating Engineers, which expires in June 2017.

As of December 31, 2016, the Coffeyville Fertilizer Facility employed 146 of our employees, of whom none were unionized.

As of December 31, 2016, the East Dubuque Facility employed 150 of our employees, about 61% of whom were represented by the International Union of United Automobile, Aerospace, and Agricultural Implement Workers under a three-year collective bargaining agreement that expires in October 2019.

#### Available Information

Our website address is www.cvrenergy.com. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports, filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, are available free of charge through our website under "Investor Relations," as soon as reasonably practicable after the electronic filing or furnishing of these reports is made with the Securities and Exchange Commission (the "SEC"). In addition, our Corporate Governance Guidelines, Codes of Ethics and Charters of the Audit Committee, the Nominating and Corporate Governance Committee and the Compensation Committee of the Board of Directors are available on our website. These guidelines, policies and charters are also available in print without charge to any stockholder requesting them. We do not intend for information contained in our website to be part of this Report.

#### Item 1A. Risk Factors

You should carefully consider each of the following risks together with the other information contained in this Report and all of the information set forth in our filings with the SEC. If any of the following risks and uncertainties develops into actual events, our business, financial condition or results of operations could be materially adversely affected.

#### Risks Related to the Petroleum Business

The price volatility of crude oil and other feedstocks, refined products and utility services may have a material adverse effect on the petroleum business' earnings, profitability and cash flows.

The petroleum business' financial results are primarily affected by the relationship, or margin, between refined product prices and the prices for crude oil and other feedstocks. When the margin between refined product prices and crude oil and other feedstock prices tightens, the petroleum business' earnings, profitability and cash flows are negatively affected. Refining margins historically have been volatile and are likely to continue to be volatile, as a result of a variety of factors including fluctuations in prices of crude oil, other feedstocks and refined products. Continued future volatility in refining industry margins may cause a decline in the petroleum business' results of operations, since the margin between refined product prices and crude oil and other feedstock prices may decrease below the amount needed for the petroleum business to generate net cash flow sufficient for its needs. The effect of changes in crude oil prices on the petroleum business' results of operations therefore depends in part on how quickly and how fully refined product prices adjust to reflect these changes. A substantial or prolonged increase in crude oil prices without a corresponding increase in crude oil prices, could have a significant negative impact on the petroleum business' earnings, results of operations and cash flows.

Profitability is also impacted by the ability to purchase crude oil at a discount to benchmark crude oils, such as WTI, as the petroleum business does not produce any crude oil and must purchase all of the crude oil it refines. Crude oil differentials can fluctuate significantly based upon overall economic and crude oil market conditions. Adverse changes in crude oil differentials can adversely impact refining margins, earnings and cash flows. In addition, the petroleum business' purchases of crude oil, although based on WTI prices, have historically been at a discount to WTI because of the proximity of the refineries to the sources