

Memorandum

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Date: December 15, 2014

To: Andy Icken

City of Houston

From: Beto Cardenas

Re: Valero Houston Refinery

In response to inquiries from the City Council and your office, we wanted to provide additional information to you regarding our client, Valero's work to reduce emissions at their Houston Refinery. In addition, we have also noted various facts pertaining to their community investments, upgrades since their purchase and acquisition of the refinery in 1997, and honors received for their improvements and ongoing work at the refinery.

This Memorandum includes excerpts from our original Petition to the City reflecting areas of corporate citizenship, emission reductions through the last decade, and highlights regarding safety at the refinery. Because of Valero's actions, the Houston Refinery has seen dramatic enhancements over the last decade highlighting their commitment to producing environmentally clean products, while improving the environmental quality of operations and making the safety of employees, operations and communities its highest priority. Environmental stewardship is a core value at Valero as reflected with reduced environmental incidents and significant improvements demonstrating their commitment to a cleaner environment.

Corporate Citizenship

Valero values responsible corporate citizenship and takes pride in being a good neighbor. It was the first energy company to formally adopt an Environmental Justice Policy and to initiate real outreach to fence line communities. Valero diligently looks for ways to build relationships along the fence line by holding meetings with local community advisory panels (CAP) and by expanding its outreach to improve the quality of life of its neighbors. Here in Houston the Valero Refinery is partnering with Urban Harvest on plans to convert one or more vacant lots in the nearby Manchester neighborhood to community gardens. The Houston Refinery is also active in the United Way donating hundreds of thousands of dollars and thousands of volunteer hours to the local community and Houston area charities.



As a company, Valero works hard to exceed basic environmental regulatory compliance as a way to improve the quality of life of its neighbors. As shown in the graph below, the Houston Refinery has decreased its emissions by 90% since 2003 despite increasing its throughput by 44%.

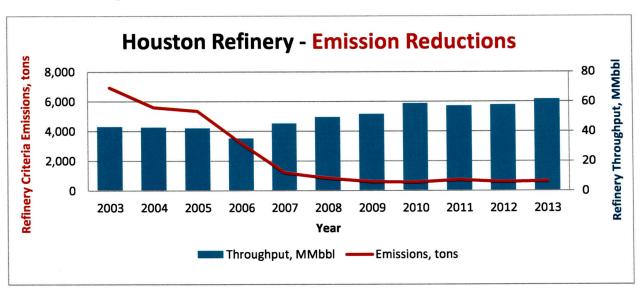


Exhibit: Refinery Emission Reductions from 2003 - 2013.

This graph illustrates the substantial reductions in emissions at the Valero Houston Refinery, even as production has significantly increased over the years.

In order to achieve such dramatic emissions reductions and environmental improvements, Valero has invested significant capital in the Houston Refinery and built industry-leading management systems. Since acquiring the Houston Refinery, Valero has enhanced the plant by pouring over \$1.1 billion into the facility, and has taken this underinvested Refinery from one of the most marginal operations in the nation to one of the most reliable and efficient operations. Valero sees even more opportunities for growth in its refining fleet with the changes in the oil and gas industry afforded by the Eagle Ford Shale and low natural gas prices, and hopes to be able to execute on some of those opportunities at its Houston Refinery.

Independent of any agency oversight, Valero goes beyond regulatory compliance in both its safety expectations and achievements. Valero voluntarily submits to rigorous safety standards and audits from OSHA and other state safety agencies under OSHA's Voluntary Protection Programs (VPP). As discussed below, facilities that meet or exceed the OSHA PP



safety standards are honored with OSHA's Star Site designation, the highest safety recognition given in the United States.

A Culture of Safety

The Valero Houston Refinery received its initial VPP Star Site designation in 2003, and was re-certified in 2007 and again in 2011. Houston Refinery employees are accustomed to meeting high safety standards and achieving excellent safety performance, and by 2013 had worked more than four years with only one recordable injury, exceeding 1 million safe work hours. The Refinery has been recognized with numerous safety awards over the years from OSHA, NPRA/AFPM¹ and Valero, including the following:

- OSHA Star Among Stars (2007 and 2013), Superstar (2008), Star of Excellence (2010)
- NPRA/AFPM— Gold Award for 64.8% TRIR² reduction (2009), Distinguished Safety Award Honorable Mention and Achievement Award (2011), Distinguished Safety Award³ (2012)

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¹ The National Petrochemical and Refiners Association (NPRA) is now known as the American Fuel & Petrochemical Manufacturers (AFPM).

² Total Recordable Incident Rate

³ AFPM's most prestigious honor recognizing superior safety performance. Recipients are chosen by a committee whose selection is based upon safety performance records and stringent screening and selection criteria. The Houston Refinery operated two consecutive years, in 2010 and 2011, without an employee or contractor injury, and more than five years without a contractor lost-time injury.



VALERO HOUSTON REFINERY

Reportable Emission Events have decreased 96% in the last 6 years:

	Emission Events
Year	Reportable
2006	25
2007	11
2008	7
2009	2
2010	1
2011	2
2012	1
2013	3
2014 YTD	1

Total Quantity of Emissions (past 6 years)

2006 = 3,191 tons	
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2007 = 1,270 tons	
2008 = 1,073 tons	
2009 = 657 tons	
2010 = 752 tons	
2011 = 789 tons	
2012 = 600 tons	
2013 = 656 tons	
Total emissions down 799	% from 2006 to 2013



Refinery Investments/Upgrades

- Invested over \$1 billion dollars in refinery since purchase in 1997
- Added equipment to produce cleaner gasoline and diesel fuel
- Reduced overall emissions by 80%
- New boilers reduce boiler emissions by 90%
- New sulfur recovery complex reduces sulfur unit emissions by 80%
- New scrubber reduces FCC emissions by 90%
- Reliability upgrades result in fewer upset emissions
- Invested approximately \$200 million in pollution control enhancements
 - All major point sources are monitored at the refinery SO2 monitors on both SRU's, NOX and SO2 monitors on the FCC and HRVOC monitors on both flares as well as on 5 cooling towers.
 - All 3 new boilers have SCR technology installed and NOX monitors to ensure emissions < 10 ppm.
 - Some heaters have NOX CEMs; all heaters are equipped with fuel gas flow meters which when combined with the fuel gas H2S CEMs allow us to calculate SO2 emissions
 - o Infrared Camera to search detectable emissions

Community Investments

- Pledged \$435,000 for 2012 United Way Campaign, including company match, 100% employee participation
- Awarded \$300,000 to 27 children's charities thru 2011 Valero Texas Open & Benefit for Children Golf Classic
- Sponsored J.R. Harris Elementary School with "Elves & More" and delivered 679 bikes to students in 2011
- Contributes more than 5,000 volunteer hours annually to the local community
- Ongoing support of multiple programs at J.R. Harris Elementary School

Other Refinery Initiatives/Honors:

- Received the Distinguished Safety Award for 2011 from American Fuel & Petrochemical Manufacturers, formerly National Petrochemical & Refiners Association (NPRA). It is AFPM's most prestigious recognition.
- OSHA's Voluntary Protection Program (VPP): initial Star approval, 2003; "Star Among Stars," 2007; re-certified Star Site, 2007; "Superstar," 2008; awarded "Star of Excellence," 2010; re-certified Star Site, 2011
- Excellence in Energy Management by U.S. Dept. of Energy, 2003 and 2006