VALERO
ST. CHARLES REFINERY
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November 1, 2006

Dr. Kimberly M. Gallo
Director, Community and Industry Relations
Louisiana Department of Environmental Quality
Office of the Secretary
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

Subject: Louisiana Environmental Leadership Program
Annually Updated Pollution Prevention Progress Report
Valero St. Charles Refinery, AI No. 26003
Pollution Prevention / Waste Reduction Goals and Highlights

Dear Dr. Gallo:

Please find enclosed our annually updated pollution prevention and waste reduction progress report. This submittal includes Valero's past and future environmental project highlights. We look forward to submitting a Pollution Prevention Project for consideration in the Governor's Louisiana Environmental Leadership Pollution Prevention Award competition in January of 2007.

Please contact me with any comments or questions regarding this program.

Sincerely,

Robert J.T. Martin, P.E.
Environmental Engineering Manager

Enclosure

Planned and Past Projects

Title	Year	Capital Cost	Resulting Reductions	Explanatory Comments	2006 Status Update
Sulfur Dioxide Emissions Reduction	2003	$1,100,000	1710.2 (tons/yr)	Reduced approximately 96% of sulfur dioxide emissions from sulfur recovery unit malfunctions by implementing several reliability projects at the sulfur recovery units.	Due to successful SRU updates, Valero has reduced the need to route H_2S emissions to the flare.
Caustic Reuse	2003	$202,000	1.5 (vessels/yr)	Spent sulfidic caustic waste streams are sent offsite for reuse instead of sending this material offsite as a hazardous waste.	Valero loads 1.5 vessels of spent caustic to Merichem annually as an alternative to hazardous waste disposal. Merichem processes and markets the caustic material to other industrial manufacturers.
Oil Recovery	2003 - present	potential annual savings of $670,000 in disposal costs	1400 (tons/yr)	Recycled oil bearing secondary residuals by sending to Motiva–Norco for oil recovery via a thermal desorption process. The recovered oil is transferred into Motiva's refining process.	on-going project
Soil Reuse	2004-2005	potential annual savings of $35,000 in disposal costs	5200 (cubic yards)	Lightly contaminated soils were approved for soil reuse at Valero by the LDEQ RECAP process versus sending the soils offsite for disposal.	on-going project
Diesel Combustion Emission Reductions	**2007**	**$3,500,000**	**NOx = 47.64 (tons/yr) CO = 5.80 (tons/yr) HC = 1.16 (tons/yr) PM = 0.37(tons/yr) SO2 = 1.38 (tons/yr)**	**Reduce diesel combustion emissions by eliminating up to five on-site rental compressors and replacing those units with a condensing turbine that consumes excess 150# steam.**	**new project**
Purchase of an LDAR IR Camera	**2007**	**$70,000**	**-**	**Identify and mitigate volatile organic chemical leaks from process equipment through inspections with an infrared gas imaging device. Valero is currently awaiting internal purchasing approvals for this equipment.**	**new project**
Road Upgrades	**2003 - present**	**$500,000**	**PM = 22.97 (tons/yr)**	**Reduce emissions of particulate matter, impairment of visibility, and traffic hazards by plant road improvements.**	**new project Valero has paved approximately 70% of the plant roads and has continual road improvements budgeted for 2007.**
Particulate Matter Emissions Reduction	**2005**	**$641,000**	**149 (tons/yr)**	**Reduce particulate emissions from catalyst dust suspended in the flue gas. Upgrades to the BELCO will include installation of EDV nozzles to spray the inlet of existing filtering modules. These modules are used in the final separation of solids from the flue gas stream.**	**completed during the 2005 turnaround**

Waste Reduction Goals

Waste Emissions/Stream	Base Line Year	Reported Amounts in Baseline Year	Type of Waste	Target Year	Target Amount After Reduction	(V) Voluntary (M) Mandatory Reduction	Comments and Explanations	2006 Status Update
Spent FCCU catalyst (Ecat) /support media	2003	3200 (tons/yr)	HW	2008	1600 (tons/yr)	V	Investigate and implement recycling opportunities for waste streams.	Valero has partnered with Equilibrium Catalysts Inc.(ECI) for off-site transport of Ecat. ECI markets this material to other industrial facilities. Valero pays ECI for handling and offsite transport, but does not incur additional material disposal costs.
Wastewater	2003	667 (lbs/Mgallons)	WW/ WWP	2008	-	V/M	Upgrade waste after treatment facilities.	Valero is executing a thirty-four million dollar wastewater treatment facility upgrade to be completed in 2007-2008.
Recyclables – paper, aluminum, cardboard	2003	6000 (lbs/yr)	UW	2008	7500 (lbs/yr)	V	Improve and expand existing recycling efforts at site.	Valero has a pending paper recycling contract with Shred-It company. Additionally, the aluminum can recycling program yielded an annual energy opportunity of 441 kilowatt-hours.
Improve plant energy efficiency / reduce heater combustion emissions	**2007**	**-**	**AE**	**2009**	**155 (MMBtu/hr)**	**V**	**Reduce the firing duty requirements of process heaters by adding process equipment and/or re-routing streams to combine similar operating temperatures.** **Improve heater efficiency by optimizing heat recovery, improving draft, and optimizing stack excess oxygen control.**	**new projects**