



St. Paul Park Refining Co., LLC

A subsidiary of Marathon Petroleum Corporation

301 St. Paul Park Road
St. Paul Park, MN 55071

October 29, 2019

CERTIFIED MAIL: 7018 1130 0000 5305 8084

Attn: Compliance Tracker (AE-17J)
Air Enforcement and Compliance Assurance Branch
Air and Radiation Division
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Boulevard
Chicago, Illinois 60604



CERTIFIED MAIL: 7018 1130 0000 5305 8077

Attn: William Wagner (C-14J)
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Boulevard
Chicago, Illinois 60604

RE: Docket # CCA-05-2018-0022
Supplemental Environmental Project (SEP) Completion Report
St. Paul Park Refining Co. LLC
301 St. Paul Park Road
St. Paul Park, MN 55071
Consent Agreement and Final Order (CAFO)

To Whom It May Concern:

Pursuant to paragraph 67 of Consent Agreement and Final Order, in the matter of: St. Paul Park Refinery Company, LLC (SPPRC) of Saint Paul Park, Minnesota, Respondent, Docket # CCA-05-2018-0022 as amended on April 29, 2019 a Supplemental Environmental Projects (SEP) completion report is submitted herein.

Enclosed is a SEP completion report in accordance with Paragraph 67 for all projects. Please note that St. Paul Park Refinery (SPPR) was notified on September 4, 2019 that the third party non-profit environmental organization (Environmental Initiative (EI) contracted to implement the Consent Agreement and Final Order (CAFO) Paragraph 61 diesel emission-reduction projects had not completed one of the four projects by August 31, 2019 as agreed. Upon receiving this notification, SPPRC contacted EPA via email and requested a deadline extension for paragraph 66 of the CAFO, Docket No. CAA-05-2018-0022, as amended on April 25, 2019, from August 31 to October 31, 2019 in order to complete the remaining SEP identified in paragraph 61.b. As a result, EPA granted an extension on September 13, 2019 to Paragraph 66 to complete the remaining SEP by October 31, 2019. The final

project was completed by October 25th, 2019. The documentation for all completed projects is contained in this report. Provisions directly quoted from the CAFO are indicated in blue, italicized font.

Supplemental Environmental Project Completion

67. *No less than 60 days after completion of all SEPs, Respondent must submit a SEP completion report to EPA. This report must contain, at a minimum, the following information:*
- a. *Detailed description of each SEP as completed.*
 - b. *Description of any problems executing the SEPs and the actions taken to correct the problems.*
 - c. *Documentation that the funds were spent in conformity with the SEPs as described.*
 - d. *Documentation that the replaced engines were destroyed, dismantled or otherwise permanently decommissioned such that they will no longer be operated.*
 - e. *Certification that the Respondent has completed the SEPs in compliance with this CAFO.*
 - f. *Description of the environmental and public health benefits resulting from the SEPs (quantify the benefits and pollution reductions, if feasible).*

See attached documentation for details a through f for each SEP.

If you have any questions, please contact Rebecca Nolan at 651-769-6766.

CERTIFICATION

I certify that I am familiar with the information in this document and that, based on my inquiry of those individuals for obtaining the information, it is true and complete to the best of my knowledge. I know that there are significant penalties for submitting false information, including possibility of fines and imprisonment for knowing violations.

Regards,



Amy Macak
General Refining Manager
St. Paul Park Refining Co. LLC
Marathon St. Paul Park Refinery

Attachments:

- Attachment 1 Paragraph 60 SO₂ Emissions Reduction Project at the Refinery
- Attachment 2 Paragraph 61 Diesel Emission Reduction Projects
- Attachment 3 October 2018 Project Monthly Report: #3 SRU Pit Vapor Re-Route
- Attachment 4 Pollution Reduction Description Table
- Attachment 5 Environmental Initiative Report of St. Paul Park Refining Co. LLC Project Completion Verification Photos

Attachment 1:

Paragraph 60

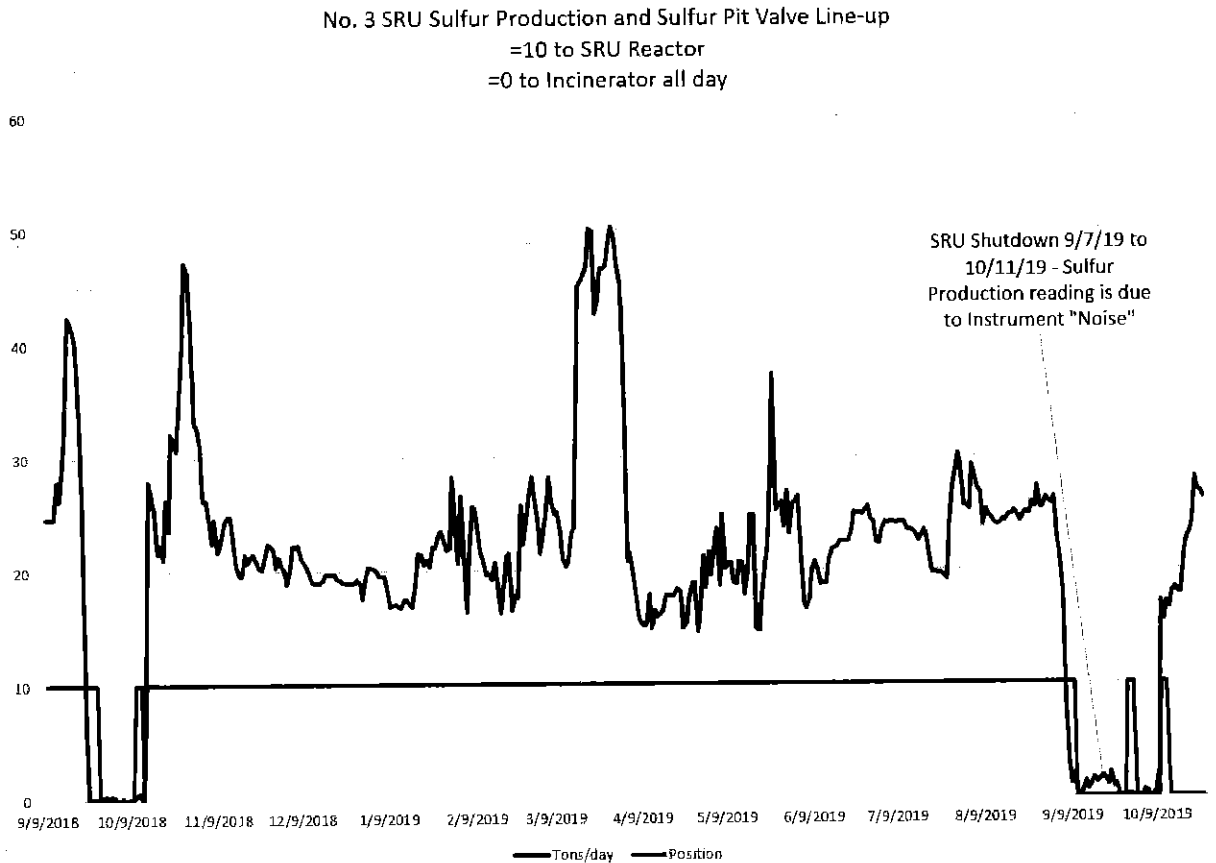
SO2 Emissions Reduction Project at the Refinery

a. Detailed description of each SEP as completed.

SPPRC completed this project by September 17, 2018 and spent \$571,000. The due date for completion was May 31, 2019 (see provision 65).

SPPRC re-routed sulfur pit emissions from the No. 3 sulfur recovery unit (SRU) from the tail gas incinerator to the front end of the SRU for additional sulfur removal. Emissions are managed in this manner except during startup, shutdown, or malfunction events at the SRU, in which case emissions from the sulfur pit may be routed to the tail gas incinerator.

Table 1. Sulfur Production compared to sulfur pit vapor lineup to SRU Reactor or SCOT tail gas incinerator showing continuous operation with the pit vapor lined up to the Reactor from September 2018 to October 2019.



b. Description of any problems executing the SEPs and the actions taken to correct the problems.

This project was executed eight months before the due date and operated as planned from September 2018 until present, with the exception of one incident during the startup of the #3 SRU from a maintenance turnaround in October 2019. The startup commenced with the pit vapors directed to the SRU reactor. However, on startup, a steam jacketed flange began to leak, requiring vapors to be returned to the SCOT tail gas incinerator until repairs could be made.

Parts to complete the repairs were ordered, repairs are scheduled, and pit vapors will be returned to the reactor when repairs are completed. As a result of this startup difficulty, additional steps are being investigated to mitigate the time vapors are going to the incinerator rather than the SRU. Procedures are in place to line up the SRU Sulfur Pit vapors to the reactor during normal operation.

- c. *Documentation that the funds were spent in conformity with the SEPs as described.*
See Attachment 3, October 2018 Project Monthly Report – 3 pages.
- d. *Documentation that the replaced engines were destroyed, dismantled or otherwise permanently decommissioned such that they will no longer be operated.*
Not applicable to this project.
- e. *Certification that the Respondent has completed the SEPs in compliance with this CAFO.*
Included in the certifying statement of this submittal, Certification of SEP Completion Report letter.
- f. *Description of the environmental and public health benefits resulting from the SEPs (quantify the benefits and pollution reductions, if feasible).*
The environmental benefit is a reduction in sulfur dioxide emissions by an estimated 0.5 to 2 tons sulfur dioxide per year based on historical emissions as monitored at the #3 SRU/SCOT incinerator continuous emission monitor system.

Attachment 2:

Paragraph 61

Diesel Emission Reduction Projects

The four projects identified to complete Paragraph 61, are summarized below. SPPRC entered into an Agreement with Environmental Initiative to administer and implement the diesel emission reduction projects.

A. Twin Cities & Western Railroad Auxiliary Power Unit Replacement

a. Detailed description of each SEP as completed.

This project was completed by August 2019. Twin Cities & Western Railroad (TC&W) is a Class III railroad based out of Glencoe, MN, that operates rail lines that reach to Hopkins, Minneapolis, and St. Paul Port operations along the Mississippi River. TC&W operates two locomotives along this rail line that are powered by two 2,000 horsepower EMD GP 38-2 engines; one from 1971 and one from 1969. These uncertified engines idle an estimated 2,150 hours per year and consume 51,000 gallons of diesel fuel in the 7-County Metro Area (36,000 gallons in Hennepin and Ramsey Counties). This project installed two Auxiliary Power Units (APUs), one for each locomotive engine. When at rest in railyards, locomotive engines are often idled in order to keep engine heating and cooling system fluids circulating to various engine systems. The installation of an APU eliminates the need to idle the large locomotive engine and instead uses an 18-horsepower engine to heat and/or cool the engine fluids needed to service the engine.

b. Description of any problems executing the SEPs and the actions taken to correct the problems.
There were no problems executing this SEP.

c. Documentation that the funds were spent in conformity with the SEPs as described.
See Attachment 4, Pollution Reduction Description Table for documentation of funds spent.

d. Documentation that the replaced engines were destroyed, dismantled or otherwise permanently decommissioned such that they will no longer be operated.
See Attachment 5, Project Completion Verification Photos provided by Environmental Initiative.

e. Certification that the Respondent has completed the SEPs in compliance with this CAFO.
Included in the certifying statement of this submittal, Certification of SEP Completion Report letter.

f. Description of the environmental and public health benefits resulting from the SEPs (quantify the benefits and pollution reductions, if feasible).
The two new APUs are estimated to reduce 16,000 gallons of diesel consumption each year in addition to reducing 0.764 tons of particulate matter, 19.95 tons of NOx, 1.15 tons of VOCs, and 3.12 tons of carbon monoxide. Refer to Attachment 4, Pollution Reduction Description Table below.

B. Spectro Alloys (or comparable) Loaders. (Spectro Alloys was replaced with two other projects including a Gavilon Grain Forklift Replacement and a GAF Front End Loader Replacement which are included below).

GAF Front End Loader Replacement

a. Detailed description of each SEP as completed.

This project was completed by October 25, 2019. GAF Corporation is a division of Buildings Materials Manufacturing Corporation and operates an asphalt shingle manufacturing and distribution center in North Minneapolis. This project replaced its model year 1991, 190 horsepower front end loader with a new, EPA-certified Tier 4 machine.

b. Description of any problems executing the SEPs and the actions taken to correct the problems.

At the onset of the project period, administrative delays caused previously interested fleets to withdraw four of the original six pieces of equipment that were identified for replacement. To correct this, EPA and SPPRC amended CAFO Paragraph 61 that allowed for substitution of similar projects and Environmental Initiative was able to recruit additional projects of similar usage profiles and locations as the original planned projects. This resulted in a delay in project start dates and restricted project timelines. In addition, withdrawals of substitute fleets in mid-August 2019 required additional project recruitment and a deadline extension approved by EPA. Despite these delays, final SEP completion resulted in eight engines on six pieces of comparable equipment replaced with newer, cleaner, and more efficient engines that resulted in substantial, cost-effective emission reductions.

c. Documentation that the funds were spent in conformity with the SEPs as described.

See Attachment 4, Pollution Reduction Description Table for documentation of funds spent.

d. Documentation that the replaced engines were destroyed, dismantled or otherwise permanently decommissioned such that they will no longer be operated.

See Attachment 5, Project Completion Verification Photos provided by Environmental Initiative.

e. Certification that the Respondent has completed the SEPs in compliance with this CAFO.

Included in the certifying statement of this submittal, Certification of SEP Completion Report letter.

f. Description of the environmental and public health benefits resulting from the SEPs (quantify the benefits and pollution reductions, if feasible).

In addition to eliminating an estimated 468 pounds of particulate matter, 1.39 tons of NOx, and saving more than 150 gallons of diesel fuel per year, these reductions will also be occurring in an Environmental Justice priority area, as defined by both the Metropolitan Council and the Minnesota Pollution Control Agency.

Gavilon Grain Forklift Replacement

- a. *Detailed description of each SEP as completed.*

This project was completed by October 25, 2019. Gavilon Grain Agricultural Holdings, Inc., operates a grain storage and transportation facility at the Red Rock Road terminal of the St. Paul Port along the Mississippi River. This intermodal site connects the production of Minnesota farms with the inter-continental transportation system to export grain and products to international demand centers.
- b. *Description of any problems executing the SEPs and the actions taken to correct the problems.*

At the onset of the project period, administrative delays caused previously interested fleets to withdraw four of the original six pieces of equipment that were identified for replacement. To correct this, EPA and SPPRC amended CAFO Paragraph 61 that allowed for substitution of similar projects and Environmental Initiative was able to recruit additional projects of similar usage profiles and locations as the original planned projects. This resulted in a delay in project start dates and restricted project timelines. In addition, withdrawals of substitute fleets in mid-August 2019 required additional project recruitment and a deadline extension approved by EPA. Despite these delays, final SEP completion resulted in eight engines on six pieces of comparable equipment replaced with newer, cleaner, and more efficient engines that resulted in substantial, cost-effective emission reductions.
- c. *Documentation that the funds were spent in conformity with the SEPs as described.*

See Attachment 4, Pollution Reduction Description Table for documentation of funds spent.
- d. *Documentation that the replaced engines were destroyed, dismantled or otherwise permanently decommissioned such that they will no longer be operated.*

See Attachment 5, Project Completion Verification Photos provided by Environmental Initiative.
- e. *Certification that the Respondent has completed the SEPs in compliance with this CAFO.*

Included in the certifying statement of this submittal, Certification of SEP Completion Report letter.
- f. *Description of the environmental and public health benefits resulting from the SEPs (quantify the benefits and pollution reductions, if feasible).*

This project is expected to eliminate 174 pounds of particulate matter, 1,424 pounds of NOx, 100 pounds of VOCs, and 618 pounds of carbon monoxide per year. Refer to Attachment 4, Pollution Reduction Description Table.

C. *Magnolia Blossom Engine Repower*

a. *Detailed description of each SEP as completed.*

This project was completed by April 2019. The Magnolia Blossom is a riverboat based out of Hidden Falls Park and Crosby Park at Watergate Marina and operates three cruise destinations that traverse the Mississippi and Minnesota Rivers throughout Hennepin, Ramsey, and Dakota Counties. The Magnolia Blossom was previously operating two 150-horsepower propulsion engines and one 34-horsepower generator set, all more than 30 years-old and pre-dating EPA-emission standards with model year engines dating back to 1988. All three engines were upgraded to EPA-certified Tier 3 engines.

b. *Description of any problems executing the SEPs and the actions taken to correct the problems.*

At the onset of the project period, administrative delays caused previously interested fleets to withdraw four of the original six pieces of equipment that were identified for replacement. To correct this, EPA and SPPRC amended CAFO Paragraph 61 that allowed for substitution of similar projects and Environmental Initiative was able to recruit additional projects of similar usage profiles and locations as the original planned projects.

c. *Documentation that the funds were spent in conformity with the SEPs as described.*

See Attachment 4, Pollution Reduction Description Table for documentation of funds spent.

d. *Documentation that the replaced engines were destroyed, dismantled or otherwise permanently decommissioned such that they will no longer be operated.*

See Attachment 5, Project Completion Verification Photos provided by Environmental Initiative.

e. *Certification that the Respondent has completed the SEPs in compliance with this CAFO.*

Included in the certifying statement of this submittal, Certification of SEP Completion Report letter.

f. *Description of the environmental and public health benefits resulting from the SEPs (quantify the benefits and pollution reductions, if feasible).*

Each engine ran approximately 1,000 hours and consumed an estimated 8,000 total gallons of diesel fuel, which resulted in 122 pounds of particulate matter and 2,390 pounds of nitrous oxides emitted per year. The upgrading of all three engines to EPA-certified tier-3 engines resulted in reducing 100 pounds of PM2.5 and 1,660 pounds of NOx per year. Other emission reduction benefits include 126 pounds of ozone-formulating VOCs and 154 pounds of carbon monoxide. In addition, 2,500 gallons of anticipated fuel consumption reduction will result in a reducing an estimated 33.7 tons of carbon dioxide per year. Refer to Attachment 4, Pollution Reduction Description Table.

D. Bailey Nursery Front End Loader Replacement

a. Detailed description of each SEP as completed.

This project was completed by April 2019. Bailey Nursery operates a bulk soil and horticultural business operating out of Newport, Minnesota along the Interstate 494 and Mississippi River Corridor. This project replaced one model year 1998 front end loader with a new, EPA-Certified Tier 4 front end loader.

b. Description of any problems executing the SEPs and the actions taken to correct the problems.

At the onset of the project period, administrative delays caused previously interested fleets to withdraw four of the original six pieces of equipment that were identified for replacement. To correct this, EPA and SPPRC amended CAFO Paragraph 61 that allowed for substitution of similar projects and Environmental Initiative was able to recruit additional projects of similar usage profiles and locations as the original planned projects.

c. Documentation that the funds were spent in conformity with the SEPs as described.

See Attachment 4, Pollution Reduction Description Table for documentation of funds spent.

d. Documentation that the replaced engines were destroyed, dismantled or otherwise permanently decommissioned such that they will no longer be operated.

See Attachment 5, Project Completion Verification Photos provided by Environmental Initiative.

e. Certification that the Respondent has completed the SEPs in compliance with this CAFO.

Included in the certifying statement of this submittal, Certification of SEP Completion Report letter.

f. Description of the environmental and public health benefits resulting from the SEPs (quantify the benefits and pollution reductions, if feasible).

This project is expected to eliminate 408 pounds of particulate matter, 1.286 tons of NO_x, 126 pounds of VOCs, and 732 pounds of carbon monoxide. Refer to Attachment 4, Pollution Reduction Description Table.

Attachment 3:

**October 2018 Project Monthly Report
#3 SRU Pit Vapor Re-Route**

October 2018 Project Monthly Report

Project:	SP-FAR-171	#3 SRU Pit Vapor Reroute	Close Out	Date:	10/24/19
Project Manager:	Greg Schafer		Construction Contractor:	Embedded contractors	
Engineering Firm:	Lake Superior Engineering				

Executive Summary
 This project is to reroute the #3 SRU Sulfur Pit Vapors from the No. 3 SCOT Incinerator (42-B-2) to the #3 SRU Reaction Furnace (41-B-1) to reduce sulfur dioxide emissions by an estimated 2-6 tons/year. This is the projects last report. The project punchlist completed in early October. The project cost \$598,000 (4.5% under budget) and completed on schedule. The project performance was been good to this point.

Permitting: Environmental notified system on-line for EPA reporting.
Concerns: None - Online and performing as expected since September 14th.

Safety/Environmental Performance		
Recordable Injuries/Rate	0	0.00%
Lost Time Injuries/Rate	0	0.00%
First Aid Injuries	0	0
DEIs	0	2871 manhours through August 31st.

Monthly Activities Achieved

Redline drawing updates
 Complete punchlist
 Complete project close out and evaluation

Next Month Activities Planned
 Minor MOC post-start assignments yet to close by team members

Schedule

	Plan/Estimate		Actual		Forecast		% Complete
	Start	Finish	Start	Finish	Start	Finish	
Detail/LL:	12-Oct-17	29-Mar-18	12-Oct-17	28-Feb-18			100.0%
Bidding	15-Jan-18	15-Feb-18	4-Dec-17	6-Feb-18			100.0%
Procurement	15-Feb-18	1-Aug-18	15-Feb-18	30-Jul-18			100.0%
Construction:	15-Jul-17	24-Aug-18	15-Jul-17	17-Sep-18			100.0%
Project Close Out	17-Sep-18	16-Nov-18	17-Sep-18	16-Nov-18			100.0%

October 2018 Project Monthly Report

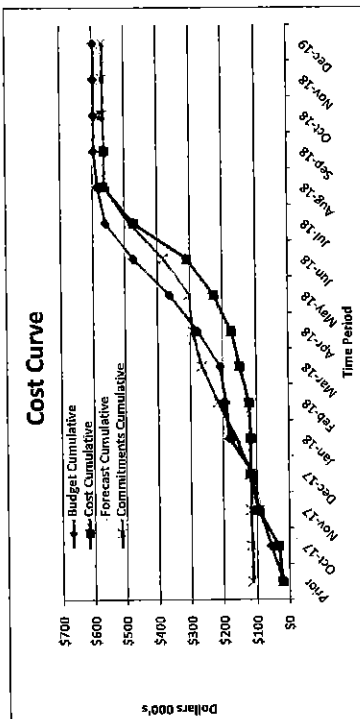
St Paul Park Refinery

Project:	SP-TAR-171	#3 SRU Pit Vapor Reroute	Close Out	Date:	10/24/19
Project Manager:	Greg Schafer		Current Phase:	Embedded contractors	
Engineering Firm:	Lake Superior Engineering		Construction Contractor:		

Cost Summary

Project ID	Classification	Approved Amount	Spent Amount I/TD	Balance
SP-TAR-171	Capital	\$597,000	\$571,512	\$25,488
N/A	Expense	\$0	\$0	\$0
	Total	\$597,000	\$571,512	\$25,488

Plan/Estimate	Actual to Date	Forecast to Complete	Forecast at Completion
Engineering	\$139,200	\$0	\$139,200
Procurement/Bid	\$136,500	\$0	\$136,500
Construction	\$207,600	\$0	\$207,600
Owners Cost	\$43,000	\$0	\$43,000
Contingency & escalation	\$0	\$0	\$0
Total	\$571,512	\$0	\$571,512



Cash Flow in \$M

	Prior	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Total
Actual	\$23	\$13	\$61	\$25	-\$2	\$5	\$27	\$24	\$53	\$84	\$162	\$92	-\$1	\$5	\$571
Forecast															\$0

Contingency Log

Estimate	Description	Value	Remaining
\$110,000	Added design service change orders	\$35,500	\$74,500

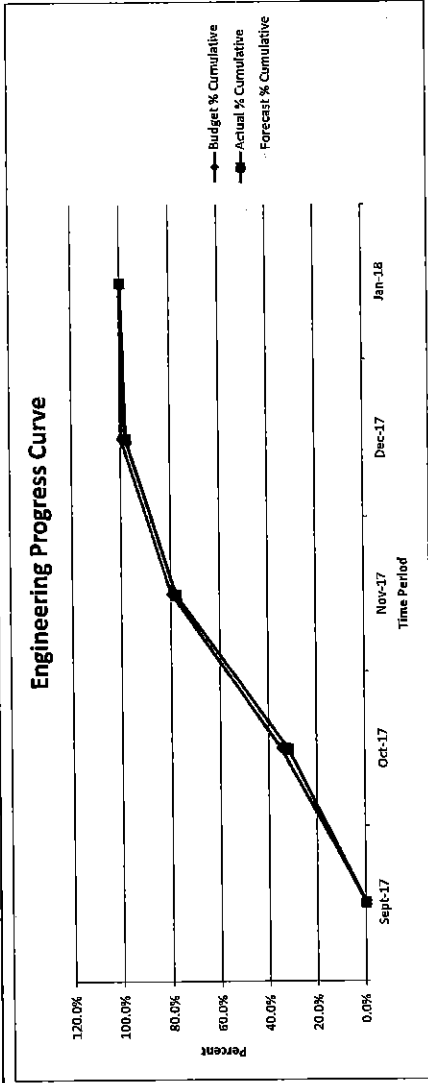
Change Order Log

#	Description	Benefit	Cost	Date Approved
1	Added steam XV engineering	safety per review	\$7,000	11/2/2017
2	Additional detailed engineering	SIS and vendor design oversight	\$28,500	12/21/2017
3	SCR#76: Structural steel mods	field change	\$3,532	6/28/2018
4	SCR#83: Handrail and grating mods	field mods	\$5,003	7/9/2018
5	SCR#105: Piping mod	field mods	\$6,084	8/2/2018
6	SCR#119: Steam spool/flange mod	field mods	\$1,185	8/24/2018
7	SCR#120: Operation delay for outage construction	Ops delay	\$995	8/24/2018
8	SCR#121: contractee cross fitting mod	field mods	\$408	8/24/2018
Total			\$50,707	

October 2018 Project Monthly Report

St Paul Park Refinery

Project:	SP-TAR-171	#3 SRU Pit Vapor Reroute	Close Out:		Date:	10/24/19
Project Manager:	Greg Schafer	Current Phase:	Embedded contractors			
Engineering Firm:	Lake Superior Engineering	Construction Contractor:				



Attachment 4:

**Pollution Reduction
Description Table**

Attachment 4: Pollution Reduction Description Table (source: Environmental Initiative)

All emission reduction data were calculated using the EPA Diesel Emissions Quantifier as provided by Environmental Initiative. Emission results are attached.

Project	SPPRC	Fleet \$	Fleet %	Total \$	PM Reduced (tons)	NOx Reduced (tons)	Fuel Savings (gal)
Magnolia Blossom	\$62,319.00	\$93,478.50	60%	\$155,797.50	0.05	0.69	5000
TC&W APU	\$25,222.00	\$6,612.00	21%	\$31,834.00	0.382	9.975	8,000
TC&W APU	\$25,222.00	\$6,612.00	21%	\$31,834.00	0.382	9.975	8,000
GAF Loader	\$25,000.00	\$237,508.00	91%	\$262,508.00	0.234	1.39	156
Gavilon Forklift	\$40,000.00	\$125,000.00	78%	\$165,000.00	0.087	0.712	150
Bailey Nursery Loader	\$39,250.00	\$117,750.00	75%	\$157,000.00	0.20	1.29	75
Environmental Initiative Administration	\$54,205	NA	NA	\$54,205	NA	NA	NA
Total	\$271,218.00	\$586,960.50	73%	\$858,178.50	1.335	24.03	24,360
Pieces of Equipment		6					
Engines Replaced		8					
Car-Equivalent		24,345					

Attachment 5:

**Environmental Initiative Final Report of
St. Paul Park Refining Co. LLC
Project Completion Verification Photos**

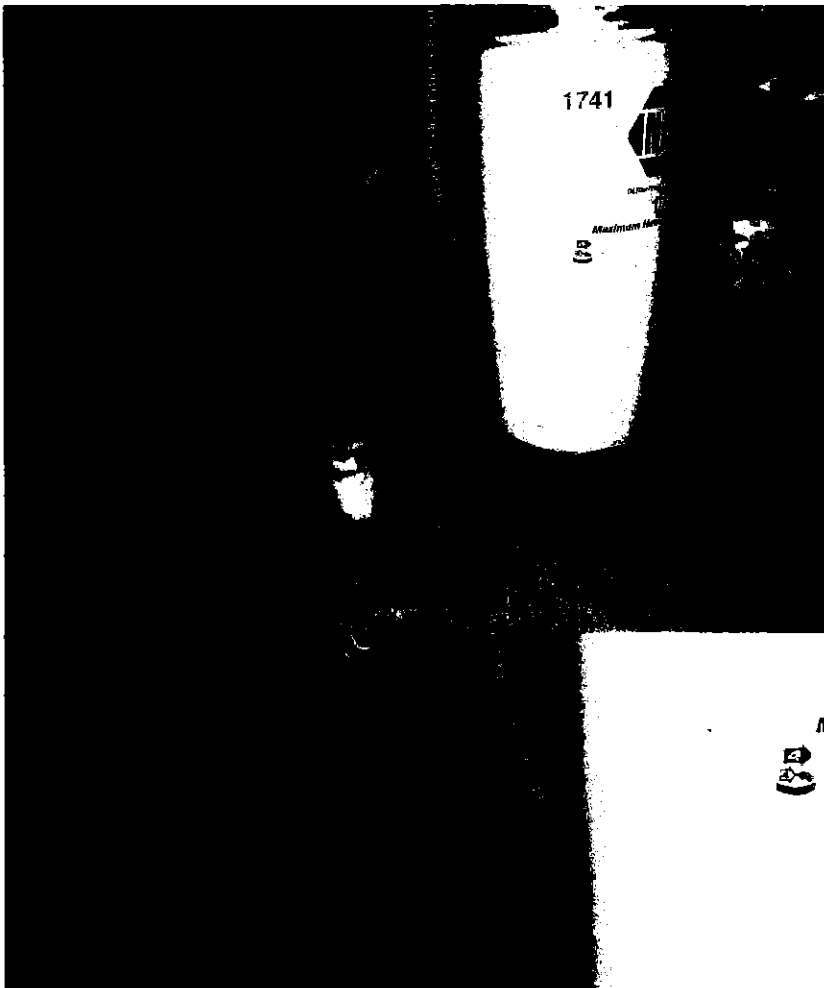
Environmental Initiative Final Report

St. Paul Park Refining Co. LLC Project Completion Verification

Bailey Nursery Loader Destruction

Thursday, June 6, 2019 at 12:11:46 PM Central Daylight Time

Subject: Case loader
Date: Thursday, June 6, 2019 at 7:55:54 AM Central Daylight Time
From: Daniel Rivera
To: Doug Larsen
Attachments: IMG_5196.jpg, IMG_5195.jpg, IMG_5193.jpg, IMG_5194.jpg, IMG_5197.jpg



TC&W APU installation





Gavilon forklift



Magnolia Blossom
Removed and disabled generator set



Removed propulsion engines



Disabled propulsion engines



GAF Loader



120V60638

VME America
CLEVELAND, OHIO 44

Michigan Model/Type
Prod:

120V60638