AFE Request
Consent Decree - Compliance Plan Projects
Project Descriptions

Twelve capital projects are included in the Lake Charles VCM Plant Compliance Plan. A listing of these projects and individual project descriptions are as follows:

1) Combustion Air Control $ 95.0M

This project provides for the installation of an improved combustion air control system to minimize incinerator bypasses due to flameouts. The existing combustion air control system will be revised to include: 1) vent header feedforward, 2) liquid byproduct flow feedforward; 3) natural gas flow feedforward; 4) firebox oxygen concentration feedback; and 5) feedback control of flame or firebox temperature. These modifications will improve the control of excess oxygen and incinerator firebox temperature to ensure complete combustion and thereby minimize incinerator bypasses due to flameouts.

2) Standby Blower Autostart $ 39.5M

This project provides for the installation of automatic controls to start a standby incinerator combustion air blower when the on-line blower approaches maximum capacity. The proposed system will minimize incinerator bypasses due to flameouts that result from incomplete combustion associated with combustion air supply limitations.

3) Incinerator Burner Modifications $158.0M

This project provides for the installation of new burner assemblies in Incinerators I-901 and I-901B. The new burner assemblies will improve mixing of combustion air, fuel gas, and vent streams and thereby minimize incinerator bypasses which result from incomplete combustion due to insufficient mixing.

4) Oxygen Analyzers $ 17.9M

This project provides for the installation of a new in-situ oxygen analyzer in each of the Incinerators to improve the control of excess oxygen requirements for complete combustion. Installation of the new in-situ oxygen analyzers will provide for quicker response of the combustion air blower to changes in the incinerator load and thereby minimize incinerator bypasses due to flameouts.

5) Flame Arrestor Level Control $ 9.0M

This project provides for the installation of instrumentation to prevent incinerator bypasses due to low liquid seal flame arrestor level. The proposed system provides for a board mounted alarm to indicate a malfunction of the emergency make-up water valve. Installation of these position alarms will allow for quicker operator response and thereby minimize incinerator bypasses due to low liquid seal flame arrestor level condition.

6) Auto Tie Breaker $ 27.5M

This project will provide for the installation of an automatic tie breaker system at the Stauffco Substation. The new auto tie breaker provides for a programmable controller system to sequentially detect a loss of voltage on an incoming line, check for ground faults on the secondary side of the substation, open the switch on the feed which lost power, and close the tie breaker. Installation of this auto tie breaker will minimize incinerator bypasses due to electrical power failures.

7) Wet Vent and D.C. Vent Flow Alarms $ 6.1M

This project provides for the installation of operator adjustable flow alarms for the wet vent and direct chlorination vent to alert the incinerator operators of changing conditions which could impact the incinerator. Installation of the adjustable flow alarms will provide for quicker operator response to changes in the incinerator load and thereby minimize incinerator bypasses due to high vent flows.

8) S-207 A&B Restriction Orifice $ 0.2M

This project provides for the replacement of the existing restriction orifice in the vent line from the Flake Caustic Dryers, S-207 A and B. The new restriction orifice will limit the maximum vent flow and minimize incinerator bypasses due to high vent flow from the Flake Caustic Dryers.

9) HCl Column Control $142.0M

This project provides for the installation of new HCl Column instrumentation to improve the control of the column overhead and bottom product compositions. The proposed system will prevent excessive HCl concentrations in the tower bottoms and the resulting carryover to the VCM Column. The improved control system will reduce the need to vent the vinyl column condensers and thereby minimize incinerator bypasses due to high vent flow from the vinyl column condensers.

10) Direct Chlorinator Feed Restriction $ 4.1M

This project provides for the installation of new instrumentation to prevent incinerator bypasses resulting from impurities in the chlorine and ethylene feedstock to the Direct Chlorinator. The proposed system will provide two high vent flow alarms to alert operators such that the necessary corrective action can be made to prevent incinerator bypasses which result from high vent flows associated with feedstock impurities.

11) S-102 Flow Indicator Alarm $ 4.6M

This project provides for the installation of a flow indication for the vent from the Light Ends Column Accumulator (S-102). The flow indication and alarm will aid in manual venting management as well as alerting main plant operators to changing conditions which could impact the incinerator.

12) Tank Farm Vent Eductor $58.0M

This project provides for the installation of a backup system for the Tank Farm Vent Blowers, BL-412A and B to prevent incinerator bypasses due to blower failure. The proposed system provides for a Kynar eductor using nitrogen as the motive fluid to compress the tank vents. The backup system is activated automatically when the operating blower trips out.

March, 1985

March 18 (10 min)	Flame failure high vents from oxy and R-101 S/U.
March 26 (3 min)	DC header due to low/low S-911B level - instrument problem.

April, 1985

April 16 (90 min)	Power interruption to BL-902 controls - loss of air. Ignitor head to be replaced also.

May, 1985

May 7 (20 min)	Low combustion air flow. BL-902 trip out.

July, 1985

July 21 (50 min)	Plantwide 4160 power failure.
July 26 (15 min)	DC high vent flow - Pascal ship lined compressor to us.

August, 1985

August 17 (2)	Related to C-203 startup activities, malfunction of a hand valve on condensers caused too much flow.

October, 1985

October 26	DC R/D blew for 9 hours.

November, 1985

November 4 (45 min)	High amp S/D on BL-901A.
November 7 (12 min)	Loss of natural gas - LCCP closed valve.
November 28	High ethane LCCP S/U overamped blower.

February, 1986

February 3 (2)	a. Upset in EDC wash system put liquid in vent header. b. High vent - undetermined source.

February 7	BL-902 trip out.
	BL-412 down due to T-450 steaming, later found line plugged on discharge.

April, 1986

April 20	BL-902 tripped.
April 21	Wet vent valve tripped on - air line broke, maintenance.

May, 1986

May 25	Wet vent bypass, ship loading with DC vents split to both - wash system upset.