

PLAINTIFF'S EXHIBIT

SH-2221

DATE: AUGUST 2, 1990

FROM: A. SVOBODA, HEALTH & SAFETY
DEER PARK MANUFACTURING COMPLEX

TO: P. T. HAMILTON, CAT CRACKING & GAS
DEER PARK MANUFACTURING COMPLEX

SUBJECT: INDUSTRIAL HYGIENE MONITORING RESULTS FOR THE
CAT CRACKER

Industrial hygiene monitoring results from a survey conducted at the Cat Cracker July 9 through August 2, 1990 are attached. The survey was conducted to measure sulfur dioxide (SO_2), carbon monoxide (CO), hydrogen sulfide (H_2S) and total dust concentrations near a leak in the 3rd stage underflow line. Initial monitoring during the survey identified the extent of potential exposures and two regulated areas were established. Entry into these areas required goggles and respiratory protection to minimize personal exposures to catalyst dust and SO_2 . Water sprays were then directed at the leak to further reduce emissions and IH monitoring was continued on a daily basis until the situation was resolved. No injuries occurred and no personal exposures were reported as a result of the leak conditions.

The entire Cat Cracker Unit was regulated as a "Goggles Required" area to prevent possible eye injuries from catalyst dust emissions from the leak. A second area inside the unit boundaries was regulated as a "Respiratory Protection Required" to minimize potential exposures to SO_2 . Water sprays were directed on the leak and emissions from the leak were reduced considerably. Grab sample measurements of airborne catalyst dust were minimal, SO_2 measurements were less than 2 ppm and CO and H_2S concentrations were not detected.

Operations personnel conducted additional long-term monitoring of the internal regulated area for SO_2 using Drager diffusion tubes which do not require a sampling pump to carry out the measurements. The tubes can determine mean contaminant concentrations over a time period of eight hours or less. No SO_2 concentrations above the OSHA Permissible Exposure Limit (PEL) of 2 ppm were measured using this technique.

LAM 002350

DPMC-08506

Grab sample monitoring results are summarized in Attachments 1 and 2. If you have any questions please contact me at Ext. 6-7102.

Angie Svoboda
Angie Svoboda

Attachments

cc: W. B. Austin
J. T. Flynt
HSB Satellite
AS Chron

LAM 002351

DPMC-08507

ATTACHMENT 2

DATE	TIME	LOCATION	TOTAL DUST CONCENTRATION
07-20	12:30PM	East of CCU control room, by P-3764	8-12 mg/m3
		North side of control room, by smoking pad.	2.8-4.5 mg/m3
		North side of compressor shed.	<.5 mg/m3
		North side of unit, by outside barricade.	2.8-3.2 mg/m3
		Directly north of leak, by outside barricade.	<.5 mg/m3
		South side of control room, by compressor shed.	<.5 mg/m3
		All other areas.	<.5 mg/m3
Weather conditions: 88 degrees, wind from the East @ 5 MPH.			
07-21	03:00PM	Approximately 15-20' N/E side of CCU control room.	<.5 mg/m3
		On east wooden platform, by the leak.	1.6-3.6 mg/m3
		On west wooden platform, by the leak.	2.1-2.6 mg/m3
		North side of control room, by smoking pad.	<.5 mg/m3
		N/E side of leak, by internal barricade.	1.6-2.0 mg/m3
		All other areas.	<.5 mg/m3

Weather conditions: wind from the East/Southeast.

LAM 002352

DPMC-08508

DATE	TIME	LOCATION	TOTAL DUST CONCENTRATION
07-22	01:30PM	By P-9764. N/W side of leak.	2.0-3.8 mg/m ³
		North of control room, by smoking pad.	.7-1.0 mg/m ³
		By CCU control room door, east side.	1.2-1.8 mg/m ³
		North of control room. South of V-602.	.5-1.2 mg/m ³
		All other areas.	<.5 mg/m ³
07-23	01:15PM	East side of leak, by V-1417.	7.5-9.3 mg/m ³
		East of the leak, at approx. 15-20' away from source.	3-5 mg/m ³
		Third level of Regen structure N/E corner. South side of leak.	14-17 mg/m ³
		All other areas.	<.5 mg/m ³
Weather conditions: 82 degrees, wind from N/E @ 5 MPH.			
07-24	02:00PM	Southwest side, top of wooden platform.	8.5-11.8 mg/m ³
		Southwest side, bottom step of wooden platform.	2.8-8.8 mg/m ³
		North of leak. 15-20' from source.	<1.0 mg/m ³
		Third level of Regen structure, N/E corner.	1-3 mg/m ³
		Northeast side of leak, South of furnace	<1.0 mg/m ³
		All other areas	<.5 mg/m ³
Weather conditions: 86 degrees, wind from the South at 9 mph.			

LAM 002353

DPMC-08509