

CHEMICALS



INTEROFFICE / LAKE CHARLES

TO: DISTRIBUTION

DATE: FEBRUARY 7, 1989

FROM: MICHAEL P. DOBRASKO

MPD

SUBJECT: SPILLS AND RELEASES,
1988

Attached for your review is a summary of spills and releases which occurred at the Lake Charles Complex during 1988 (includes previously unpublished data from the 4th quarter). A number of graphical representations of the data are included and are discussed below.

Figure 1 presents the total number and reportable number of spills/releases for the entire Complex by month in 1988 and compares the monthly values to the average monthly values of 1987. There were 144 total incidents for an average of 12/month in 1988 as compared to 124 and 10/month, respectively in 1987. This amounts to an increase of 16% in the total number of incidents from 1987 to 1988. However, on the positive side, only 45 of these incidents were reportable to a regulatory agency, or 4/month, as compared to 58 and 5/month in 1987. This represents a 22% decrease in the number of reportable incidents from 1987 to 1988.

Figure 2 illustrates the releases by month from the Chlor/Alkali and Derivatives areas. No graphs are shown for the Shipping, Silicas, and Complex areas as they are responsible for very few of the total incidents.

The pie charts shown in Figure 3 illustrate the percentage of total releases attributable to each section of the Complex. A better accounting of area of responsibility for an incident was made in 1988 resulting in statistics being obtained for Shipping, Silicas, and Complex in addition to Chlor/Alkali and Derivatives.

Figure 4 shows a comparison of total and reportable incidents since 1983. This figure again illustrates the increase in total incidents but decrease in reportable incidents that occurred this year.

Figure 5 illustrates the 1988 incidents by Shift. Shift 1 represents Graveyards, Shift 2, Days, and Shift 3, Evenings. The distribution remains similar to that observed for 1987 with the majority of the total incidents occurring during Shift 2. A significant increase of incidents occurring during Shift 3 is noted (42 in 1988 vs. 25 in 1987).

Figure 6 illustrates 1988 total and reportable incidents by day of the week. As compared to last year, a shift occurred to Thursday

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(from Tuesday) as being the day for the majority of the total and reportable incidents in 1988.

Figure 7 compares the breakdown of incidents by cause between 1987 and 1988. The relative magnitudes did not change appreciably. The major changes appear to be a 7% increase due to People Errors and Other Problems and a 75 decrease due to Mechanical Problems.

Another measure of spills and releases is the total poundage of chemicals released to the environment. In 1987, a total of 1,047,567 pounds of chemicals were released. This included a one-time spill of 806,766 pounds of brine. Excluding the brine, 240,801 pounds of material were lost. In contrast, only 45,856 pounds of chemicals were lost to the environment in 1988 as a result of spills or releases. This represents an 80% decrease compared to the 1987 loss excluding the brine. This would suggest that the magnitude of any particular incident is much less than that previously observed.

For 1988, a goal was set to decrease Reportable incidents by 15%. This goal was achieved. By diligent attention to our work, there is no reason why a further decrease of 15% in Reportable incidents cannot be achieved in 1989.

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SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
01/04/88 Mon SHIFT 2	CHLORINE G 6.5 lbs.		CA/ Hg CELL	CIRCUIT SHUTDOWN DUE TO COMP. ACCIDENTLY SHUTDOWN AT LIQUE. Cl2 GAS BACKFLOWED THRU Hg CELL HEADERS TO NEUTRALIZING TOWERS. CHLORINE SURGE NOT COMPLETELY NEUTRALIZED.	SCAFFOLD WAS BUILT OVER COMPRESSOR TO PROTECT TRIP MECHANISM DURING MAINTENANCE WORK. IN THE FUTURE, SUCH A STRUCTURE WILL BE BUILT AHEAD OF TIME IF NEEDED.
01/10/88 Sun SHIFT 1	CHLORINE G 8.3 lbs.		CA/ ELECT. A	CHLORINE COMP. PRESS. CONTROL IMPULSE LINE FROZE DUE TO COLD WEATHER. COMP. HAD TO BE TRIPPED; HIGH PRESSURE ON DISCHARGE CAUSED WATER SEAL ON COOLER TO BLOW RELEASING GAS.	LINES WERE INSULATED TO PREVENT FREEZING IN THE FUTURE.
01/10/88 Sun SHIFT 2	CHLORINE G 6.7 lbs.		CA/ ELECT. A	CHLORINE COMP. CONTROL FAILED DUE TO FROZEN IMPULSE LINE WHILE PUTTING CKT. 16 ONLINE. ULTIMATE RESULT WAS HEAVY Cl2 LOAD TO NEUTRALIZER ALLOWING Cl2 TO BLOW THRU 10" LIQ. OVERFLOW SEAL LINE	LINES WERE INSULATED TO PREVENT FREEZING IN THE FUTURE.
01/10/88 Sun SHIFT 1	NaOH L 292 lbs.		CA/ CAUSTIC C	COLD WEATHER CAUSED DRAIN LINE TO FREEZE WITH CAUSTIC. TWO VALVES LEAKED BY CAUSING ABOUT 50 GAL. OF ET-50 CAUSTIC TO DRAIN TO THE GROUND.	REPLACED LEAKING VALVES, INSULATED AIR MANIFOLD TO HELP PREVENT FREEZING, RAN DRAIN LINE BACK TO CONTAINED PUMP PAD AREA.
01/11/88 Mon SHIFT 2	ClHC G 30.2 lbs.		B/ PER/TRI	SUSPECTED PREMATURE RUPTURE DISCS FAILURE ON MIDDLE DH FEED TANK AT PER/TRI.	ANTIFREEZING OF STACKS WILL BE PUT ON FREEZE PRECAUTION LIST. A PRESSURE TRANSMITTER WITH ALARM HAS BEEN INSTALLED ON ALL DH FEED TANKS.
01/14/88 Thu SHIFT 2	HCl L 77 lbs.		B/ WTU	FLANGE LEAK OF WEAK ACID IN PIPE RACK BEFORE THE ISOLATION DROP POINT JUST NORTH OF DERIVATIVES SWITCHGEAR ROOM PRIOR TO COLUMBIA-SOUTHERN ROAD.	A QAT IS LOOKING AT NEW MATERIALS AND IMPROVING OPERATING PROCEDURES TO STOP LEAKS ON THIS LINE.

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SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT	AREA	DESCRIPTION	CORRECTIVE MEASURES
01/14/88	EDC G		B/	WTU	A SLUG OF ORGANICS WAS FED TO #2 CSS	DISCUSSIONS ARE BEING HELD WITH VCM-II
Thu	198 lbs.				CAUSING RUPTURE DISC TO BLOW FOR ABOUT 1	AND TE-II ON THIS MATTER. RESULTS AND
SHIFT 2					MIN. NO UNUSUAL INCIDENTS IN THE OHC	PLANS WILL BE WRITTEN AND PRESENTED TO
					UNITS APPEAR TO BE PRECURSORS.	THE COMMITTEE WHEN COMPLETED.
01/15/88	PER/ TCE L	DEQ/NRC	B/	WTU	RUPTURE DISC ON #2 WASTE RECOVERY KETTLE	SHUTDOWN SYSTEM ALARMS WERE CHANGED SO
Fri	17 lbs./ 49 lbs.	PER/ TCE			BLEW DUE TO VALVE(S) LEAKING BY.	THAT AN ALARM WOULD SOUND IF HIGH
SHIFT 2		17lbs./ 49 lbs.			LIQUID DRAINED OUT THE STACK FOR ABOUT	PRESSURE EXISTS EVEN IF THE SHUTDOWN
					5 MINUTES.	SYSTEM HAS TRIPPED.
01/26/88	NaOH L	DEQ/NRC	SH/	SHIPPING A	6350 lbs. OF 50% CAUSTIC SPILLED TO	FAILED TO FOLLOW SOP. EMPLOYEE WAS
Tue	3200 lbs.	NaOH			GROUND DUE TO OVERFILLING A T/C DURING	COUNSELLED.
SHIFT 3		3200 lbs.			LOADING. LOADER WAS READYING ANOTHER T/C	
					AND FORGOT ABOUT THE ONE HE WAS	
					LOADING UNTIL IT OVERFLOWED.	
01/27/88	CHLORINE G	SARA/NRC		COMPLEX	WEAK ACID LINE RUPTURED AT 90 ELBOW	A PLAN TO REPLACE THE PRESENT FIBERCAST
Wed	10 lbs.	CHLORINE			WHEN ACID pH CONTROL VALVE SLAMMED SHUT	LINE WITH DERACANE OR TEFLON-LINED
SHIFT 3		10 lbs.			SHOCKING THE LINE. ACID RELEASED TO 118	STEEL PIPE HAS BEEN INITIATED BY
					SEWER CAUSED RELEASE OF CHLORINE.	FLOYD FONTENOT, SS.
01/30/88	NaOH L			SILICAS	A CIRCULATING HOSE ON #3 CCD RUPTURED	HOSES HAVE BEEN ELIMINATED AND EXTERNAL
Sat	715 lbs.				CAUSING A SPILL OF 400-500 GAL. LIQUID	PORTIONS HARDPIPED. HOSES ONLY ON IN-
SHIFT 1					BLEND OF CAUSTIC AND SODIUM SILICATE.	SIDE OF TANK.
01/30/88	NaOH L			SILICAS	RUPTURED RECIRCULATING HOSE ON #3 CCD	HOSES HAVE BEEN ELIMINATED AND EXTERNAL
Sat	72 lbs.				(AGAIN).	PORTIONS HARDPIPED. HOSES ONLY ON IN-
SHIFT 3						SIDE OF TANK.

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SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
01/30/88	NaOH L Sat 150 lbs. SHIFT 2		CA/ ELECT C	RINE LINE RUPTURED SPILLING 50,000 GAL. BRINE. IMPROPER PUMP SHUTDOWN CAUSED HEADER TO BREAK.	OPERATOR WAS GIVEN A VERBAL WARNING IN A COUNSELING SESSION AND WAS TOLD TO USE PROPER SOP'S.
02/01/88	NaOH L Mon 245 lbs. SHIFT 3		CA/ "C" CAUSTIC	BLEED VALVE ON BOIL OUT PUMP WAS LEFT OPEN. WHEN A TRANSFER WAS MADE FROM THE 2ND EFFECT TO THE BOIL OUT STG. TK. MATERIAL LEAKED OUT OF THE OPEN VALVE ONTO GROUND. PUMP PAD OVERFLOWED.	REEMPHASIZED NEED TO CLOSELY CHECK DRAINS IN PIPING BEING PUT INTO SERVICE ON BOILOUTS. UNPLUGGED PUMP PAD DRAIN. LOOKING AT A BETTER WAY OF KEEPING pH PROBE UPRIGHT IN DITCH.
02/03/88	ClHC L Wed 10 lbs. SHIFT 1	DEQ/NRC ClHC 10 lbs.	B/ VCM-11	#1 VC DOPP KETTLE WAS BEING EMPTIED INTO A TAR BUGGY. A LEAK OCCURRED AT THE HAMMER UNION CONNECTION ON THE LOADING LINE INTO THE TAR BUGGY. SPILL RAN OFF CONTAINMENT ONTO THE GROUND.	PROCEDURE WAS REWRITTEN TO PRESSURE CHECK CONNECTION PRIOR TO PUTTING BOTTOMS IN THE LINE.
02/06/88	HCl L Sat 702 lbs. SHIFT 1		B/ WTU	A TEFLON BACKING REMAINING UNNOTICED IN VENT LINE AFTER REPAIRS TO WEAK ACID STG TK. CAUSED TANK TO OVERPRESSURE WHEN PUT INTO SERVICE, MOVE OFF FOUNDATION, AND SHEAR PIPING.	PRESSURE RELIEF HAS BEEN INSTALLED ON TOP OF TANK. VENT SYSTEM HAS BEEN SEPARATED FROM OTHER COS TANKS. IMPLEMENTED PROCEDURE TO PUT TABS ON ALL TEFLON BLINDS.
02/12/88	NaOH L Fri 408 lbs. SHIFT 3		SHIPPING/ A	CAUSTIC WAS DUMPED INTO SUMP FROM DAMAGED CARS. HIGH LEVEL ALARM AND PUMP AUTO SWITCH DID NOT WORK. SUMP OVERFLOWED BEFORE OPERATOR NOTICED AND COULD TURN PUMP ON MANUALLY.	OPERATOR WAS COUNSELED. HIGH LEVEL ALARM AND PUMP AUTO SWITCH WERE REPLACED.
02/17/88	CHLORINE G Wed 7.9 lbs. SHIFT 2		CA/ HG CELL	DURING SWITCHING OF NEUTRALIZER CIRCULATION PUMPS, DIVERSION SYSTEM TRIPPED SENDING TAILGAS TO POWER HOUSE STACK. FAULTY PUMP SWITCH ON ONE OF THE PUMPS CAUSED PUMP TO WORK WRONG.	AMP METERS HAVE BEEN INSTALLED FOR THE CIRCULATION PUMPS TO GIVE A BETTER INDICATION OF PUMP OPERATION WHEN SWITCHING IS REQUIRED.

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02/19/88	NaOH L		SHIPPING/ DOCKS	A DRAIN VALVE AT C DOCK CAUSTIC SUMP WAS LEFT OPEN AFTER LAST CLEARING OF CAUSTIC LINES. WHEN CAUSTIC TANK WAS LINED UP, SUMP FILLED AND OVERFLOWED INTO THE RIVER.	TANKERMAN WAS COUNSELED AND TOLD TO FOLLOW SOP'S.
Fri	318.5 lbs.				
SHIFT 2					
02/20/88	EDC L		B/ WTU	WET EDC WAS BEING UNLOADED INTO #1 VC TK A LEAK WAS LATER NOTICED FROM THE 3" SUCTION NOZZLE ON THE TANK. ALL EDC WAS CONTAINED BY THE DIKE AROUND THE TANK.	TANK WILL BE INSPECTED INTERNALLY AND REPAIRED. NOZZLE WILL BE MOVED FROM BOTTOM TO SIDE OF TANK.
Sat	305 lbs.				
SHIFT 3					
02/23/88	METHYLCHLOROFORM L		B/ TE-II	AFTER FILLING DRUMS WITH PRODUCT USING A HOSE, THE HOSE WAS LAID DOWN. PRODUCT LEFT IN THE HOSE DRAINED ONTO THE PAD.	(NOT CONSIDERED A RECORDABLE SPILL UNDER PRESENT GUIDELINES. GUIDELINES ARE UNDER REVIEW BY THE SPILL CONTROL COMMITTEE.)
Tue	21.7 lbs.				
SHIFT 2					
02/25/88	CLHC L		B/ VCM-II	SMALL BLEED VALVE ON SIDE ARM COOLER WAS LEFT PARTIALLY OPEN AND NOT CHECKED WHEN COOLER WAS PUT BACK INTO SERVICE. EDC REACTOR LIQUOR SPILLED OUT OF VALVE ONTO PAD.	OPERATORS COUNSELED. PROCEDURES ARE BEING CHANGED TO REQUIRE LEAK CHECKING OF EQUIPMENT BEFORE RETURNING IT TO SERVICE.
Thu	358 lbs.				
SHIFT 3					
02/26/88	CLHC L	DEQ/NRC	B/ WTU	INCINERATOR FEED LEAKED TO THE GROUND FROM A DRAIN VALVE ON THE CPC LIQUID LINE THAT HAD BEEN LEFT OPEN. DRAIN HAD BEEN MODIFIED ALLOWING SPILL TO BE TO THE GROUND RATHER THAN THE PAD.	OPERATOR COUNSELED TO INSPECT FOR OPEN VALVES CAREFULLY PRIOR TO STARTUP. FITTINGS WERE REMOVED TO DIRECT POSSIBLE SPILLS TO A CONTAINED AREA.
Fri	110 lbs.	CLHC			
SHIFT 2					
03/03/88	CLHC G		B/ EDC	TRI STILL OVERHEAD WAS FED TO THE HOT TCE STRIPPER. WHEN IT ENTERED THE HOT COLUMN, IT VAPORIZED AND OVERPRESSURED THE COLUMN, BLOWING A RUPTURE DISC. PRESSURE TRANSMITTER WAS READING LOW.	THE TRANSMITTER WAS PUT ON THE PROOFTST PROGRAM.
Thu	27.6 lbs.				
SHIFT 2					

SPILLS AND RELEASES AT LAKE CHARLES

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03/11/88 Fri SHIFT 1	CHLORINE G 5 lbs.		* SHIPPING/ A	LIQUID CHLORINE LOADING LINE VALVE PACKING BLEW OUT. OCCURRED AT TANK 21 VALVE ON THE CHLORINE PATIO. RESULTED IN A FIRST AID CASE.	CHANGING TO ANOTHER TYPE OF CHLORINE VALVE WITH BETTER PERFORMANCE RECORD.
03/24/88 Thu SHIFT 2	CHLORINE G 6 lbs.	DEQ/LSP CHLORINE 6 lbs.	B/ EDC	WHILE HEATING UP #3 RX, VENT WENT TO SCRUBBER INSTEAD OF INCINERATOR HEADER. CHLORINE WAS RELEASED FROM SCRUBBER FOR ABOUT 2 MINUTES UNTIL VENT WAS SWITCHED TO INCINERATOR HEADER.	CHANGED PROCEDURES TO PUT VENTS TO INCINERATORS BEFORE CHLORINE ADDITION.
03/28/88 Mon SHIFT 2	HCl G 62 lbs.		B/ PER/TRI	#5 WEST PRIMARY CONDENSER BOTTOM HEAD GASKET BLEW OUT WHILE ATTEMPTING TO TIGHTEN A LEAK AT THE SAME LOCATION.	POLICY CHANGED SO THAT BOLTS WILL NOT BE ADJUSTED UNLESS THE PROCESS SIDE OF GRAPHITE EXCHANGERS HAVE BEEN DEPRESSURIZED.
04/05/88 Tue SHIFT 3	NaOH L 440 lbs.		CA/ CAUSTIC A	DRAIN LINE VALVE LEFT OPEN ON FEED LINE TO WEST CONCENTRATOR FEED PUMP. SPILL WAS TO A CURBBED PAD. PAD DRAIN WAS PARTIALLY PLUGGED CAUSING CAUSTIC TO OVERFLOW PAD.	PAD DRAIN WAS CLEANED AND THE DRAIN LINE AT THIS POINT WAS REMOVED TO ELIMINATE THE POSSIBILITY OF A LEAK.
04/07/88 Thu SHIFT 2	NaOH L 254 lbs.		CA/ CAUSTIC C	WEST CELL LIQUOR TANK WHEEL WAS BEING PUMPED OUT. HOSE ON PUMP DISCHARGE TORE AT THE SUMP PUMPING CELL LIQUOR TO THE GROUND.	SOP HAS BEEN CHANGED TO REQUIRE MAN WATCH WHENEVER TANKS ARE BEING DRAINED OR CLEARED IN THIS WAY.
04/16/88 Sat SHIFT 3	CHLORINE G 9 lbs.		* SHIPPING/ A	CHLORINE LEAK FROM THE SNIFF BLOW-DOWN VALVE BEING OPEN AND LOOSE HAMMER UNION (HAND TIGHT) DURING CLEARING OF EMPTY TANK CARS AT CHLORINE LOADING RACK.	COUNSELLED CHLORINE TEST RACK OPERATORS ABOUT TIGHTENING ALL FITTINGS WHEN HOSES ARE DISCONNECTED.

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SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
04/18/88 Mon SHIFT 3	ClHC L 3 lbs.		SHIPPING/ DOCKS	FORWARD GAGE HATCH ON STARBOARD SIDE OF CSCC 200 WAS FOUND LEAKING PRIOR TO UNLOADING BARGE. HATCH WAS NOT COMPLETELY SEALED OFF (RUST?). MATERIAL WAS BRAZILIAN EDC BLEND FEEDSTOCK.	SOP CHANGED TO LIMIT MAXIMUM LOAD ON BARGES USED FOR STORAGE IN THE PLANT.
04/18/88 Mon SHIFT 3	EDC L 100 lbs. ?		SHIPPING/ DOCKS	EDC LEAKED THROUGH A CLOSED VALVE ON VENT LINE ON PPG 212. LEVEL IN BARGE WAS UP IN EXPANSION TRUNK. LEAK STOPPED WHEN VENT PIPE WAS RAISED UP.	SOP CHANGED TO LIMIT MAXIMUM LOAD ON BARGES USED FOR STORAGE IN THE PLANT.
04/18/88 Mon SHIFT 3	NaOH L 600 lbs.		SHIPPING/ DOCKS	PPG 209 WAS BEING LOADED WITH ET-50 CAUSTIC. LOADER WAS DISTRACTED BY ANOTHER PERSON AND BARGE OVERFLOWED ABOUT 50 GALLONS.	COUNSELLED OPERATOR TO IGNORE ANYONE WHENEVER A BARGE OR ANY PIECE OF EQUIPMENT IS ABOUT TO BE LOADED. POLITELY TELL THEM YOU WILL BE GLAD TO TALK LATER.
04/21/88 Thu SHIFT 2	OIL L 2 lbs.	USCG OIL 2 lbs.	SHIPPING/ DOCKS	LEAK OF HYDRAULIC FLUID FROM A MIS-THREADED PIPE UNION ON A BARGE.	(NO REPORT WILL BE ISSUED AS THIS WAS NOT A SPILL OR ABNORMAL LEAK.)
04/26/88 Tue SHIFT 1	ClHC L 12 lbs.	DEQ/NRC PER/TCE/UNSYM 2/3/1 lbs.	B/ WTU	PIN HOLE LEAK ON #2 TETRA TANK PUMP SUCTION LINE, ABOUT 1 GALLON RELEASED.	THE LINE WAS REPLACED. SOUTH TERMINAL MATERIAL WILL NOT BE PUT INTO THESE TANKS AGAIN.
05/01/88 Sun SHIFT 3	ETHYL CHLORIDE G 75 lbs.	DEQ ETHYL CHLORIDE 75 lbs.	B/ EDC (EC/HCL)	THE SOUTH EC REACTOR COOLER DEVELOPED A TUBE LEAK THAT ALLOWED EC TO LEAK INTO THE COOLING TOWER WATER. LEAK WAS FOUND BY OBSERVING LOW COOLING TOWER WATER pH.	A COOLING TOWER WATER pH METER AND ALARM WILL BE INSTALLED TO DETECT LEAKS EARLY.

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SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
05/04/88 Wed SHIFT 2	CHLORINE G 8.8 lbs.		CA/ POWER	PINHOLE LEAK IN GASEOUS CHLORINE LINE FROM C CHLORINE TO SABINE TREATMENT.	THIS LINE HAS BEEN SCHEDULED TO BE REPLACED.
05/06/88 Fri SHIFT 1	CLHC L 34 lbs.		B/ VC-II	PRESSURE GAUGE DOWNSTREAM OF EDC SIDEARM COOLER BLEW OFF SPRAYING EDC REACTOR LIQUOR. THE CAUSE WAS INTERNAL CORROSION ON GAUGE THREADS. SPILL WAS CONTAINED ON ON CONCRETE PAD.	MAINTENANCE WAS AGAIN INFORMED OF THE NEED TO USE STAINLESS STEEL FITTINGS IN THIS AREA RATHER THAN CARBON STEEL. WILL TRY TO ARRIVE AT A VISUAL METHOD OF REMINDING PEOPLE OF THIS.
05/06/88 Fri SHIFT 3	NaOH L 113 lbs.		CA/ ELECT C	A 3/8" HOLE IN A 1 1/2" CELL LIQUOR LINE WAS FOUND WHEN OPERATORS TRIED TO PUT THE LINE IN SERVICE. LINE WAS BLOCKED IN AGAIN, BUT VALVE WAS NOT COMPLETELY CLOSED ALLOWING LINE TO LEAK SLOWLY.	THIS SECTION OF CELL LIQUOR LINE HAS BEEN REPLACED. A REVIEW OF THE SOP FOR ENVIRONMENTAL RESPONSIBILITIES OF A SPILL WAS MADE WITH THE "C" CHLORINE OPERATORS.
05/07/88 Sat SHIFT 2	NaOH L 335 lbs.		CA/ CAUSTIC A	WHILE TRANSFERING CELL LIQUOR TO AREA, FLANGE GASKET FAILED ALLOWING CELL LIQUOR TO SPILL TO GROUND. LESS THAN 3 lbs. LEAKED BY DIKE VALVE INTO 003 OUTFALL.	THE GASKET WAS CHANGED. THE CONTAINMENT SYSTEM KEPT SERIOUS ENVIRONMENTAL INSULT FROM OCCURRING.
05/09/88 Mon SHIFT 2	DIESEL FUEL L 3 lbs.	USCG DIESEL FUEL 3 lbs.	SHIPPING/ DOCKS	DIESEL FUEL LEAKED AT A SCREWED CONNECTION IN FUEL LINE ON BARGE USL 491 BETWEEN FUEL TANK AND ENGINE.	REPLACED PIPING/TUBING WITH FLEX FUEL LINE.
05/09/88 Mon SHIFT 2	CHLORINE G 338 lbs.	NRC/DEQ/SP/LEPC CHLORINE 338 lbs.	CA/ Hg CELL	TAIL GAS WAS DIVERTED FROM Hg CELL NEUTRALIZING TOWER TO POWERHOUSE STACK. HYPO CIRCULATING PUMP TRIPPED THREE TIMES CAUSING DIVERSION.	A BACKUP SYSTEM FOR PREVENTING EXCURSIONS TO THE POWERHOUSE STACK HAS BEEN ENGINEERED. PIPING AND VALVING WILL TIE DIVERSION SYSTEM INTO ONE OF PLT. A'S NEUTRALIZING TOWERS.

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SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
05/12/88 Thu SHIFT 2	CHLORINE G 6.4 lbs.		SHIPPING/ DOCKS	LEAK FROM A 3/8" HOLE IN SHIPPING BARGE BLOWDOWN LINE AT NORTHWEST CORNER OF K306. MATERIAL IN LINE WAS VENT OFF OF A RETURNED CHLORINE BARGE.	LINE WAS REPAIRED. IT IS DUE TO BE PAINTED IN 1988.
05/13/88 Fri SHIFT 3	CLHC L 62.5 lbs.	DEQ/NRC CLHC 62.5 lbs.	B/ WTU	BOTTOMS PLANT DH FEED TANK PIPING MANIFOLD WAS BEING PUT BACK INTO SERVICE. A BLIND FLANGE ON THE MANIFOLD WAS LEFT HAND-TIGHT RESULTING IN A SPILL.	PROCEEDURES TO PRESSURE CHECK EQUIPMENT PRIOR TO RETURNING IT TO SERVICE ARE BEING INITIATED.
05/14/88 Sat SHIFT 3	NaOH L 50 lbs.		SHIPPING/ DOCKS	A FLANGE GASKET ON E-50 CAUSTIC BLOCK VALVE GOING TO C DOCK STARTED LEAKING. LINE WAS PROBABLY LEFT LIQUID FULL AND LIQUID EXPANDED CAUSING LEAK.	WILL CONTINUE TO DRAIN SOME MATERIAL FROM LINE AFTER LOADING.
05/17/88 Tue SHIFT 1	CHLORINE G 5 lbs.		CA/ ELECT C	CHLORINE BLEW THROUGH THE ACID TOWER SEAL POTS DURING A SHUTDOWN OF CIRCUITS 14,13,11, AND THE WEST CHLORINE COMPRESSOR. THE WET DEMISTER BLOCK LVE VALVE WAS NOT OPENED AS IT SHOULD.	LEAD OPERATOR INVOLVED WAS COUNSELLED. SOP WAS REVISED AND REVIEWED WITH EACH LEAD OPERATOR.
05/17/88 Tue SHIFT 3	CHLORINE G 1 lb.		CA/ ELECT C	OPERATOR SLOWED DOWN WEST CHLORINE COMPRESSOR TOO FAST. AS A RESULT, THE ACID TOWERS OVERPRESSURIZED AND CHLORINE BLEW THROUGH THE WATER SEALS.	SOP WAS REVISED TO COVER "SWEETENING UP" OF THE CHLORINE SYSTEM. THIS WILL BE DONE ONLY WHEN THE CHLORINE COMPRESSOR IS DOWN OR AT A SLOW ROLL. REVISIONS HAVE BEEN REVIEWED WITH OPERATORS.
05/18/88 Wed SHIFT 1	MERCURY L 3 lbs.	DEQ/NRC MERCURY 3 lbs.	CA/ Hg CELL	LEAK DUE TO A BLOWN GASKET ON THE BOTTOM FLANGE OF CELL 15 MERCURY INLET VALVE. ALTHOUGH A FLANGE GUARD WAS PRESENT, SPLATTERING AS MERCURY HIT THE FLOOR CAUSED SOME TO CONTACT GROUND.	ROOT CAUSE ANALYSIS TO IDENTIFY CAUSE OF LEAKS. FLANGE GUARDS ARE BEING INSTALLED TO PREVENT SPRAY OF LEAKS. TEST PROGRAM TO IDENTIFY A BETTER GASKET MATERIAL.

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SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
05/24/88 Tue SHIFT 2	HCl L 53 lbs.		CA/ ELECT C	PROCESS SUMP LINE WAS PLUGGED. DURING ATTEMPT TO CLEAR THE PLUG USING SUMP PUMP, SOLIDS DISSOLVING SYSTEM EFFLUENT BACKED UP THE LINE AND STARTED DRAINING TO THE GROUND.	AREA AROUND PROCESS SUMP PUMPS HAS BEEN PADDED. INCIDENT WAS REVIEWED IN ORDER TO BE MORE AWARE OF WHAT CAN HAPPEN ON NON-ROUTINE PROCEDURES.
05/29/88 Sun SHIFT 3	ClHC L 1033 lbs.	DEQ/NRC ClHC 334 lbs.	B/ WTU	#2 VC TANK WAS BEING FILLED WITH CONTENTS OF M TETRA TANK. #2 VC TANK BEGAN LEAKING FROM THE INLET LINE TO THE TANK AT THE TANK ITSELF.	TANK WAS INSPECTED AND REPAIRED. ST-1 MATERIAL WILL NOT BE PUT INTO THESE TANKS IN THE FUTURE.
06/01/88 Wed SHIFT 2	TRICHLOR L 216 lbs.		B/ PER/TRI	TRI SHIPPING TANK OVERFLOWED. DISCREPANCIES IN LEVEL INDICATORS RESULTED IN THE OVERFLOW SITUATION.	AN ENGINEERING WORK ORDER HAS BEEN WRITTEN TO RESOLVE LEVEL INDICATION PROBLEMS.
06/01/88 Wed SHIFT 2	HCl L 100 lbs.		CA/ C ELECTROLYZ	PLUGGED CHLORINATED CONDENSATE LINES ON CIRCUIT 14 WERE BEING WASHED OUT WITH WATER. WHEN SALT PLUG BROKE, CHLORINATED CONDENSATE/ACID SOLN. SPILLED TO PAD WITH SOME TO SURFACE DRAINAGE.	A WORK ORDER HAS BEEN WRITTEN TO CURB THIS AREA.
06/05/88 Sun SHIFT 1	HCl G 29 lbs.		B/ EDC	RUPTURE DISC ON VC-1 INCINERATOR HEADER BLEW. DISC MAY HAVE BEEN FAULTY OR DETERIORATED AS PRESSURE WAS BELOW RUPTURE POINT.	HAVE A GROUP LOOKING AT PREMATURE GRAPHITE RD FAILURES.
06/08/88 Wed SHIFT 3	CHLORINE G 5 lbs.		CA/ POWER	CHLORINE ADDITION AT RIVERSIDE PUMP HOUSE WAS ON MANUAL CONTROL AND WATER ON AUTO CONTROL. LOST WATER.	WATER AND CHLORINE SUPPLY WILL BE OPERATED MANUALLY.
06/09/88 Thu SHIFT 3	PERCHLOR L 93 lbs.	DEQ/NRC PERCHLOR 93 lbs.	B/ PER/TRI	DURING TRANSFER OF PER/HOMME MIXTURE TO STABILIZE A TANK, A LEAK OCCURED FROM A CRACKED GASKET IN THE 1" LINE USED TO STABILIZE PER 232.	LOOKING AT FLANGES THAT ARE NOT OVER CONCRETE PADS. MAKING PLANS TO ELIMINATE FLANGES AND INSTALL PADS TO COPE WITH THIS PROBLEM.

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SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
06/09/88 Thu SHIFT 3	CHLORINE G 8 lbs.		CA/ Hg CELL	LOAD SHED INITIATED BY A CIRCUIT START-UP AT A CHLORINE CAUSED A SUDDEN DROP IN CIRCUIT LOAD. Hg CELL COMPRESSOR COULD NOT SLOW DOWN FAST ENOUGH CAUSING BACK PRESS. RESULTING IN BLOWN SEALS.	WORK ORDER WAS WRITTEN TO INSTALL NEW FASTER RESPONSE INSTRUMENTATION ON THE Hg CELL COMPRESSOR SYSTEM. ALSO CHANGES WERE MADE IN THE LOAD SHED PRIORITY SEQUENCE.
06/09/88 Thu SHIFT 3	NaOH L 375 lbs.		SILICAS	MECHANICAL SEAL FAILED ON THE NORTH CAUSTIC FEED PUMP. CAUSTIC FLOWED TO PUMP PAD AND PROCESS DITCH.	REPLACED PUMP SEAL.
06/14/88 Tue SHIFT 2	ClHC G 49.3 lbs.	DEQ/NRC PERCHLOR 11 lbs.	B/ PER/TRI	#1 DH STILL RUPTURE DISC BLEW. LOW DH FEED TANK LEVEL ALLOWED LIGHT ORGANICS AND/OR HIGH MOISTURE TO BE FED TO STILL CREATING PRESSURE PROBLEMS.	COUNSELLED OPERATORS TO MONITOR LEVELS MORE OFTEN. ALSO WROTE AN ENGINEERING WORK ORDER TO FIND A RELIABLE WAY TO MONITOR DH FEED TANK LEVELS.
06/14/88 Tue SHIFT 2	NaOH L 30,000 lbs.		CA/ PELS	FAILURE OF A 1.5" GASKET AT A THERMOWELL CONNECTION ON SIDE OF EAST CONCENTRATOR RESULTED IN SPILLING MOLTEN CAUSTIC TO CONCRETE PAD. CAUSTIC SOLIDIFIED AS IT FELL.	ALL GASKETS ON THIS SYSTEM HAVE BEEN CHANGED TO NI GASKETS. AN RES WAS WRITTEN TO INSTALL A REMOTE LEVEL INDICATION ON THE CONCENTRATOR VESSEL.
06/15/88 Wed SHIFT 1	HCl L 57.8 lbs.		B/ WTU	EXTERNAL CORROSION CAUSED FAILURE OF BOLTS HOLDING A PRESSURE GAUGE BLOCK VALVE IN THE WEAK ACID FILTER DISCHARGE LINE.	CORRODED BOLTS WERE REPLACED.
06/18/88 Sat SHIFT 1	CHLORINE G 4 lbs.		B/ EDC	DURING START-UP OF #3 EDC PLANT, VENTS WERE GOING TO SCRUBBER. VENT ANALYZER SHOWED C2H4 EXCESS WHEN IN FACT REACTOR WAS ON Cl2 EXCESS.	SOP'S REVISED TO CHECK CHLORINE OUTSIDE WITH ORTHO-TOLUDINE IF VENTS ARE NOT BEING SENT TO THE INCINERATOR.
06/18/88 Sat SHIFT 3	ClHC L 54 lbs.	DEQ/NRC ClHC 54 lbs.	B/ WTU	A HOLE IN INCINERATOR FEED LINE AT A WELD DOWNSTREAM OF THE LIQUID FEED FCV CAUSED A LEAK.	LINE HAS BEEN REPLACED.

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06/28/88 Tue SHIFT 2	DCE/HCL L 1133 lbs./60 lbs.		B/	TE-II	HOLE IN SUCTION LINE OF COMPRESSOR OF LOW PRESSURE HCL SYSTEM CAUSED LIQUID TO SPILL TO PAD. FLASHER ACCUMULATOR LEVEL WENT HIGH OVERFLOWING LIQUID INTO HCL SYSTEM.	PIPE WAS CHANGED OUT. INSPECTIONS ARE BEING MADE TO TRY TO DETECT SPOTS OF EXTERNAL CORROSION.
06/28/88 Tue SHIFT 2	CHLORINE G 3.6 lbs.		B/	WTU	DURING PROCESS OF FLOATING CPC CHLORINE VAPORIZER, MANUAL BLOCK VALVE CAME OFF-SEAT SUDDENLY PUTTING TOO MUCH STEAM TO VAPORIZER. SRV LIFTED FOR 2 SECONDS.	START-UP PROCEEDURES WERE REVISED AND VALVES REPAIRED AND REPLACED.
06/29/88 Wed SHIFT 2	CHLORINE G 2.3 lbs.		CA/	Hg CELL	CORROSION LEAK IN TAIL GAS HEADER TO NEUTRALIZER TOWER AT Hg CELL. EXTERNAL CORROSION ON THE BOTTOM SIDE OF THE LINE AT A PIPE SUPPORT CAUSED A LEAK IN THE LINE.	WORK ORDER WAS INITIATED TO REPLACE THE TAIL GAS HEADER. SOP IS IN PLACE TO INSPECT THE LINE TO PREVENT FUTURE EXTERNAL CORROSION FROM OCCURRING.
07/03/88 Sun SHIFT 3	SULFUR CHLORIDE G 15.5 lbs.		CA/	LIQUIFACTION	PIPE RUPTURE DUE TO INTERNAL EROSION AT AN ELBOW AT THE S2Cl2 DISCHARGE PIPING SUBCOOLER. PIPE WAS CARBON STEEL AND WAS PLANNED ON BEING CHANGED TO MONEL.	PIPING HAS BEEN CHANGED TO MONEL. THIS PIPING WAS BEING FABRICATED WHEN THIS INCIDENT OCCURRED.
07/05/88 Tue SHIFT 1	CHLORINE G 8 lbs.		B/	WTU	A TUBE LEAK DEVELOPED ON THE CPC CHLORINE VAPORIZER ALLOWING CHLORINE TO ENTER THE STEAM SIDE AND BE EMITTED THROUGH THE STEAM TRAP OUTLETS.	VAPORIZER WAS REPLACED WITH A SPARE. THE STEAM TRAPS WERE ALSO REPLACED. THE DAMAGED VAPORIZER WILL BE INSPECTED TO SEE IF ANY SPECIFIC CAUSE FOR FAILURE CAN BE DETERMINED.
07/06/88 Wed SHIFT 2	HCL G 10.6 lbs.		B/	EC/HCL	A CORROSION LEAK OCCURRED ON THE HCL FEED LINE ORIFICE LEG JUST DOWNSTREAM OF THE ORIFICE TAP BLOCK VALVE AT EC/HCL.	SEVERELY CORRODED PIPING, VALVES, AND TUBING IN THE UNIT WILL BE REPLACED. BADLY CORRODED PIPING WILL BE BLASTED AND PAINTED.

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
07/09/88 Sat SHIFT 2	PERCHLOR G 0.3 lbs.		B/ PER/TRI	#2 PER STILL HAD BEEN N2 PURGED THROUGH THE REFLUX DRUM. THE VENT VALVE WAS NOT OPENED WHEN THE N2-FILLED STILL WAS STARTED UP RESULTING IN PRESSURE AND A LEAK AT A PREVIOUS PATCH JOB.	OPERATORS WERE COUNSELLED REGARDING THE GENERAL NEED TO MAINTAIN ADHERANCE TO ALL SOP'S.
07/10/88 Sun SHIFT 1	CHLORINE G 125 lbs.	LSP/DEQ/NRC CHLORINE 125 lbs.	CA/ C ELECTRO	PLANT POWER FAILURE CAUSED CHLORINE COMPRESSORS TO SURGE RELEASING Cl2 AT ACID TOWER PRESSURE SEALS. POWER SURGE TRIPPED OFF NEUTRALIZER BLOWER WITH Cl2 ESCAPING THRU DILUTION AIR STACKS	LEVEL III STUDY MAY BE PERFORMED AND WILL ADDRESS RECOMMENDED CHANGES TO THE NEUTRALIZER PROTECTION SYSTEM.
07/10/88 Sun SHIFT 1	PERCHLOR G 11.2 lbs.	DEQ/NRC PERCHLOR 11.2 lbs.	B/ PER/TRI	PLANT POWER FAILURE CAUSED LOSS OF PUMP CONTROL, INSTRUMENTS, ETC. EMERG. SHUT-DOWN OF REACTOR PROBABLY CONTRIBUTED TO INCREASED HEADER PRESSURE RESULTING IN BURSTING LOWER RD ON #2 DH STILL.	INVESTIGATING REROUTING OF RD VENT FROM BOTTOM OF STILL TO SOMEWHERE ELSE.
07/10/88 Sun SHIFT 1	HCl G 192 lbs.	LSP/DEQ/NRC HCl 192 lbs.	B/ TE-11	PLANT POWER FAILURE SHUT DOWN UNIT. #4 OHC REACTOR WAS SHUT DOWN. REACTOR VENT MLS VALVE TO SCRUBBER WAS OPENED AND PRESSURE SURGE BLEW RD ON VENT LINE. SUSPECT LIQUIDS IN LINE CONTRIBUTED.	INSPECT SCRUBBER DRAIN LINE FOR ANY PLUGGING/RESTRICTION AT NEXT OHC RX OUTAGE. MODIFY SHUTDOWN SYSTEM TO AUTOMATICALLY OPEN THE MLS VALVE AT SHUTDOWN.
07/10/88 Sun SHIFT 3	HCl G 70 lbs.		B/ EC/HCl	WHEN VC-11 PUT HCl INTO HCl HEADER, IT PUSHED N2 INTO EC REACTOR CAUSING A PRESSURE INCREASE. THE SYSTEM BACKUP PRESSURE CONTROL VALVE OPENED TO THE SCRUBBER BLOWING SCRUBBER WATER SEAL.	MODIFY AUTOMATIC WATER SUPPLY TO EC SCRUBBER SUCH THAT IT RESPONDS PROMPTLY TO ANY EMERGENCY RELEASE OF HCl. REVISE SOP REGARDING LINING UP OF THE EC SYSTEM VENT WHILE REACTOR IS RUNNING.
07/10/88 Sun SHIFT 1	VDC G 764 lbs.		B/ EDC	PLANT POWER FAILURE. VDC REACTOR STEAM VALVE FAILED TO SEAT OFF COMPLETELY ALLOWING REACTOR TO OVERPRESSURIZE AND BLOW RUPTURE DISC.	CHECK VDC REACTOR STEAM FCV AND REPAIR/ REPLACE. CAMPAIGN FOR AUXILIARY OPERATOR TO ADD ADDITIONAL PAIR OF HANDS DURING EMERGENCY SITUATIONS.

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
07/13/88 CINC L Wed 12 lbs. SHIFT 2		DEQ/NRC PER/PENTA/HCB 5.6/1.5/3.2 lbs	B/ PER/TRI	EAST HEAVIES STILL REBOILER WAS BEING REMOVED FOR CLEANING. REBOILER WAS SUSPENDED OVER CATCH PAN. PAN NEARED FULL. REBOILER WAS TILTED TO SLOW DRAINING AND SPILLED CINC TO GROUND.	CONCRETE CURBING TO BE INSTALLED AROUND HS REBOILER REMOVAL AREA. SIZE OF CATCH PAN TO BE INCREASED. SOP FOR REBOILER SHUTDOWN TO BE REWRITTEN TO INCLUDE A 4 HOUR BAKEOUT PRIOR TO REMOVAL.
07/13/88 CINC L Wed 153.7 lbs. SHIFT 2			B/ PER/TRI	#4 PER/TRI REACTOR WAS BEING PREPARED FOR STARTUP. ORGANICS WERE BEING FED TO VAPORIZER. A BLEED ON THE WEST FLOAT CHAMBER WAS LEFT OPEN AND LIQUID CAME OUT WHEN LEVEL REACHED THIS BLEED.	LEAD OPERATOR AND REACTOR OPERATOR WILL BE COUNSELLED REGARDING THIS INCIDENT. LEAK CHECKING OF OUT-OF-SERVICE EQUIPMENT WILL BE IMPLEMENTED.
07/14/88 OIL L Thu 45 lbs. SHIFT 1			B/ EC/HCL	A LUBE OIL TUBING BROKE LOOSE ALLOWING OIL TO SPILL TO THE GROUND (PAD?). OCCURRED AT THE INSTRUMENT AIR COMPRESSOR BUILDING AT EC/HCL.	REPLACE OIL LINE AND INSPECT OTHER OIL SYSTEMS FOR POSSIBLE PROBLEMS.
07/14/88 NaOH L Thu 880 lbs. SHIFT 1			CA/ ELECTRO C	1/2 INCH CELL LIQUOR VENT LINE WAS LEFT OPEN AFTER REPAIRS TO THE LINE. HIGH POINT VENTS HAD BEEN CHECKED. THIS ONE WAS MISSED.	DEVELOPED AN SOP TO WATER FLUSH AND PRESSURE CHECK THE LINE BEFORE STARTING UP WITH CELL LIQUOR.
07/14/88 MERCURY L Thu 3 lbs. SHIFT 1		DEQ/NRC MERCURY 3 lbs.	CA/ Hg CELL	LEAK DEVELOPED ON THE TOP FLANGE OF CELL 34 MERCURY INLET VALVE SPILLING MERCURY TO FLOOR. SPLATTERING OR SPRAYING FROM GASKET FAILURE CAUSED SOME MERCURY TO SPILL OUTSIDE OF CURBED AREA.	FLANGE GUARDS HAVE BEEN INSTALLED ON FLANGES NEAR OUTSIDE OF BUILDING. CURBING WILL BE EXTENDED TO CONTAIN POTENTIAL SPILLS.
07/15/88 ETHYL CHLORIDE L Fri 1185 lbs. SHIFT 3		DEQ/NRC ETHYL CHLORIDE 1185 lbs.	SH/ SHIPPING B	SHIPPING WAS LOADING AN EC T/C AND THE LEVEL INDICATOR ON THE T/C WAS DEFECTIVE. THE CAR WAS OVERFILLED AND EC VENTED INTO THE EC/VC STACK.	GAGE ROD WAS REPLACED. ROD HAD A BURR ON IT WHICH COULD HAVE CAUSED IT TO HANG UP. RODS WILL BE INSPECTED ON ALL CARS.

SL 085751

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
07/16/88 Sat SHIFT 2	CLHC L 209.7 lbs.		B/ VC-11	FLASHER VENT LINE FILLED WITH LIQUID AND BACKED UP INTO CHLORAL TREATMENT PHASE SEPARATOR VENT LINE. LIQUID CORRODED A HOLE IN THE PIPE CAUSING A SPILL TO THE PROCESS PAD.	CARBON STEEL LINE THAT CAUSED THE PROBLEM WILL BE REPLACED WITH TEFLON-LINED PIPE.
07/18/88 Mon SHIFT 3	HCl/CLHC/CuCl2 G 1912/4/448	DEQ/MRC HCl/CLHC/CuCl2 1912/4/448	B/ TE-11	RUPTURE DISC ON #4 OMC REACTOR FAILED PREMATURELY. IT HAD BEEN INSTALLED INCORRECTLY AND RUPTURED AT 38 PSIG RATHER THAN THE RATED 60 PSIG.	REVIEWED AND REEMPHASIZED PROPER INSTALLATION PROCEDURE WITH MAINTENANCE PERSONNEL.
07/21/88 Thu SHIFT 2	CHLORINE G 4.2 lbs.		CA/ POWER	CHLORINE LEAKED FROM A PINHOLE LEAK IN THE FLANGE OF AN ELBOW IN THE CHLORINE LINE TO SABINE CLARIFICATION.	LINE HAS BEEN FRABRICATED AND WAS REPLACED DURING THE WEEK OF AUG. 22.
07/21/88 Thu SHIFT 3	HCl L 15.8 lbs.		B/ WTU	WEAK ACID FILTER INLET SIGHT GLASS GASKET FAILED DUE TO THE LOOSENING OF THE FLANGE BOLTS.	CONTAINMENT PAD FOR THIS SYSTEM WILL BE ENLARGED. ALSO PERIODIC TIGHTENING OF FLANGES FOR THIS SYSTEM WILL BEGIN.
07/21/88 Thu SHIFT 3	HCl L 36 lbs.		B/ PER/TRI	WEAK ACID LINE FROM PER/TRI TO PLANT A DEVELOPED A FLANGE LEAK.	THE WEAK ACID QAT IS LOOKING INTO PROBLEMS WITH THE WEAK ACID DISTRIBUTION SYSTEM, LEAKS BEING ONE OF THE PROBLEMS.
07/26/88 Tue SHIFT 1	NaOH L 56 lbs.		CA/ ELECTRO C	CELL LIQUOR LINE TO ACCELATORS DEVELOPED A LEAK.	LINE WAS REPLACED AND WILL BE ONE OF THE INSPECTED LINES FOR ENVIRONMENTAL SURVEILLANCE.
07/27/88 Wed SHIFT 2	TRICHLOR G 1552 lbs.	DEQ/MRC TRICHLOR 1552 lbs.	B/ PER/TRI	RUPTURE DISC ON TRI TOPPING STILL BURST. REFLUX DRUM LEVEL TRANSMITTER WAS FOUND TO HAVE A PINHOLE IN DIAPHRAM. SUSPECT THIS CONDITION ALLOWED A HIGHER LEVEL TO OCCUR THAN WAS INDICATED.	ASKED FOR INSTALLATION OF A PRESSURE TRANSMITTER FOR THE TOPPING STILL. WILL BEGIN DAILY CROSSCHECKING OF SIGHTGLASS/ FIELD LEVEL INDICATORS VS LEVEL TRANSMITTER/BOARD INDICATORS.
07/28/88 Thu SHIFT 2	HCl L 135 lbs.		B/ PER/TRI	FLANGE LEAK ON WEAK ACID HEADER ON EAST SIDE OF THE PLANT B SWITCHGEAR ROOM.	THE WEAK ACID QAT IS INVESTIGATING PROBLEMS WITH THE WEAK ACID DISTRIBUTION SYSTEM. ALSO REVIEWING PIPING SPECS TO SEE IF ACID HEADERS SHOULD BE SPECIFIED AS FRP.

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SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT	AREA	DESCRIPTION	CORRECTIVE MEASURES
08/02/88 Tue SHIFT 1	HCl G 153.6 lbs.	DEQ/LSP HCl 153.6 lbs.	B/	TE-II	A TUBE LEAK DEVELOPED IN A WELD IN THE NORTH PASS OF THE TE-II CRACKING FURNACE. WELD FAILURE WAS THE CAUSE.	REPLACE FAILED WELD AND ASSOCIATED PIPE. INSPECT AND X-RAY NEW INSTALLATION. INSPECT OTHER WELDS IN FURNACE FOR SIGNS OF CRACKING. INVESTIGATE CAUSE OF WELD FAILURE (INSPECTION DEPT.).
08/06/88 Sat SHIFT 2	NaOH L 120 lbs.		SH/	DOCKS	AN 8-IN. MC-50 CAUSTIC HOSE DEVELOPED A SPRAY LEAK WHILE LOADING A SHIP. HOSE WAS OLD AND WORN.	HOSE WAS REPLACED. HOSES ARE INSPECTED PRIOR TO EACH USE. THIS HOSE PRESSURE TESTED OK IN MARCH, 1988.
08/08/88 Mon SHIFT 1	METHYLCHLOROFORM L 165 lbs.		B/	TE-II	MC REWORK PUMP SEAL FLUSH TUBING FAILED. MC SPREAD TO PAD AND SURROUNDING SHELL. WRONG MATERIAL USED FOR SEAL FLUSH LINE AND VALVES LEAKED BY.	TUBING WAS REPLACED WITH MATERIAL COMPATIBLE TO THE SERVICE. MAINTENANCE ALERTED TO IMPORTANCE OF USING CORRECT MATERIALS AND OPERATORS TO CHECKING JOBS BEFORE ACCEPTING THEM.
08/09/88 Tue SHIFT 2	PIVALOYL CHLORIDE L 17.4 lbs.		B/	WTU	CPC REFLUX SPLITTER BROKE SPILLING CONTENTS ONTO THE PROCESS PAD. REFLUX SPLITTER WAS MADE OF GLASS. CAUSE OF FAILURE IS UNKNOWN.	THE GLASS SPLITTER WILL BE ELIMINATED ALTOGETHER AND FOR THE TIME BEING REPLACED WITH A CONTROL VALVE SYSTEM.
08/10/88 Wed SHIFT 2	KOH L 644.6 lbs.		B/	PER/TRI	TANK SUPPORTS ON BETZ 20K TANK GAVE WAY DUE TO CORROSION. TANK CONNECTIONS BROKE AWAY FROM THE TANK AS IT FELL TO THE GROUND.	OBTAIN FEEDBACK FROM BETZ REGARDING THEIR INSPECTION RESPONSIBILITIES.
08/11/88 Thu SHIFT 2	CHLORINE G 13.2 lbs.	NRC CHLORINE 13.2 lbs.	B/	EDC	MODICOM SHUTDOWN SYSTEM FOR #1 EDC REACTOR TRIPPED CAUSING LIQUID CHLORINE PRESSURE TO INCREASE. AS A RESULT, CHLORINE VAPORIZER SRV LIFTED BRIEFLY.	CHECK MODICOM SYSTEM TO SEE WHY IT TRIPPED #1 EDC REACTOR AND REPAIR AS NEEDED. INSTALL AN EMERGENCY SHUTOFF VALVE AT LIQUIFACTION CONTROL ROOM ON LIQUID LINE COMING TO EDC.

SL 085753

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT	AREA	DESCRIPTION	CORRECTIVE MEASURES
08/11/88 Thu SHIFT 2	CHLORINE G 6.9 lbs.		B/	WTU	CPC CHLORINE VAPORIZER WAS FLOATING ON THE LINE. AS A RESULT OF EDC SHUTTING DOWN (SEE ABOVE) CHLORINE HEADER OVER-PRESSURIZED AND CAUSED THE CPC CHLORINE VAPORIZER SRV TO LIFT.	THE CPC CHLORINE VAPORIZER WAS REMOVED FROM SERVICE AND SENT TO SRV SHOP FOR OVERHAUL AND REINSTALLATION. ALSO SEE CORRECTIVE ACTION FOR EDC RELEASE ABOVE.
08/11/88 Thu SHIFT 2	PERCHLOR L 26.7 lbs.	DEQ/NRC PERCHLOR 26.7 lbs.	B/	PER/TRI	PERCHLOR LEAKED OUT OF DECOLORIZER AFTER SRV'S HAD BEEN REMOVED FOR INSPECTION. SUSPECT DECOLORIZER WAS FULL OF PERCHLOR.	INCIDENT WILL BE REVIEWED WITH THE OPERATORS. THE DECOLORIZER WILL BE OPENED TO DETERMINE IF THERE WERE ANY MECHANICAL CONDITIONS THAT WOULD HAVE CONTRIBUTED TO THIS EVENT.
08/13/88 Sat SHIFT 2	CLHC L 110 lbs.		B/	WTU	DH BOTTOMS SAMPLE POINT PIPING BLEW OUT AS #2 DH STILL WAS BEING SHUT DOWN. SPILL WAS CONTAINED ON THE PROCESS PAD.	THE LINE WILL BE REPLACED WITH 3/4 INCH STAINLESS STEEL BY 08-26-88.
08/23/88 Tue SHIFT 2	CHLORINE G 2 lbs.		CA/	Hg CELL	CHLORINE WAS RELEASED AT THE ATMOSPHERIC VENT VALVE DUE TO INSUFFICIENT VACUUM ON INLET TO NEUTRALIZER. OPERATORS DID NOT OBSERVE RISE IN PRESSURE AND ACT TO LOWER IT.	ALARM WAS RESET TO 2.75 INCHES WATER VACUUM. A NEW ATMOSPHERIC VENT VALVE ACTUATOR WILL BE INSTALLED.
08/27/88 Sat SHIFT 2	HCL G 948 lbs.	DEQ HCL 948 lbs.	B/	EDC	END OF COMPRESSOR HEAD ON #3 HCL COMPRESSOR WAS KNOCKED OFF. BOLTS SHEARED OFF WHICH WERE HOLDING PISTON SEGMENT.	INVESTIGATE AND CORRECT PROBLEMS CAUSING COMPRESSOR HEAD TO OVERHEAT. REPAIR OR INSTALL HIGH TEMPERATURE ALARM AT DISCHARGE OF EACH COMPRESSOR.
08/29/88 Mon SHIFT 2	HCL G 57.8 lbs.		B/	WTU	WASTE STORAGE TANKS PRESSURIZED. WHEN TRIPPED TO THE SCRUBBER THE HIGH FLOW OVERLOADED THE SCRUBBER AND BLEW THE SEAL POTS ON THE BOTTOMS TANKS.	OPERATORS WERE INSTRUCTED TO BE MORE OBSERVANT WHEN READING A GAUGE. PRESSURE WILL BE BLED DOWN MORE SLOWLY IN THE FUTURE, PERHAPS USING A NOSE.

SL 085754

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
08/31/88 Wed SHIFT 2	METHYLCHLOROFORM L 140 lbs.		SH/ SHIPPING B	SHIPPING ATTEMPTED TO LOAD A T/T WITH 1800 GAL. TE 366 WHEN COMPARTMENT WOULD HOLD ONLY 1500 GAL. OF THE 136 GAL. SPILLED 10-12 GAL. SPLASHED ONTO THE ROADWAY OUT OF CONTAINMENT.	LOADER COUNSELED. FAILED TO FOLLOW SOP TO CHECK TANK COMPARTMENT CAPACITY WITH DRIVER'S OUTAGE TABLE.
09/01/88 Thu SHIFT 3	CHLORINE G 5.8 lbs.		CA/ Hg CELL	A LEAK DEVELOPED IN THE HYPO RECIRCULATION LINE TO THE NEUTRALIZER. THIS LESSENERED THE FLOW OF CAUSTIC TO THE TOWER ALLOWING CHLORINE TO BREAK THROUGH.	THIS LINE WAS REPLACED WITH NEW TITANIUM PIPE.
09/02/88 Fri SHIFT 1	HCl G 76.6 lbs.	LSP(SARA) HCl 76.6 lbs.	B/ EDC	A 1/2 INCH NICKEL NIPPLE BLEW OFF THE #1 EDC REACTOR VENT LINE DOWNSTREAM OF THE VENT CONDENSER. NIPPLE WAS CORRODED FROM THE INSIDE.	INSPECT OTHER NOZZLES ON THIS LINE TO TRY TO DETECT ANY OTHER INTERNAL CORROSION ON NIPPLES IN SAME SERVICE AND REPLACE.
09/04/88 Sun SHIFT 2	ClHC L 1117 lbs.	DEQ/NRC ClHC 1117 lbs.	B/ WTU	A 1 INCH NIPPLE ON THE PRESSURE TRANSMITTER ON THE CLASSIFIER AQUEOUS TRANSFER LINE TO WTU SETTLERS CORRODED SPRAYING CLASSIFIER AQUEOUS PHASE MATERIAL ONTO THE GROUND.	STEEL NIPPLE WAS REPLACED WITH KYNAR. STAINLESS TUBING WILL BE REPLACED WITH KYNAR PIPE.
09/08/88 Thu SHIFT 1	ETHYL CHLORIDE G 262 lbs.	DEQ/NRC ETHYL CHLORIDE 262 lbs.	B/ EDC	ETHYL CHLORIDE WELL WATER CONDENSER DEVELOPED A PINHOLE LEAK AT THE WELD WHERE THE CONDENSATE DRAIN LINE IS WELDED TO THE CONDENSER SHELL.	WILL HAVE INDUSTRIAL ENGINEERING CHECK THICKNESS READINGS ON BOTH THE COOLING TOWER WATER AND WELL WATER CONDENSER SHELLS. FINDINGS WILL BE CORRECTED AS NECESSARY.
09/09/88 Fri SHIFT 2	HCl L 57.7 lbs.		B/ WTU	LEVEL CONTROLLER FAILURE ON THE ACID TANK IN SODIUM FORMATE COUPLED WITH A LEAKING JOINT ON THE SEAL POT CAUSED THE TANK TO OVERFLOW TO GROUND AS IT WAS FILLING.	IP (NO CORRECTIVE ACTION PLAN ATTACHED TO REPORT.)

SL 085755

SPILLS AND RELEASES AT LAKE CHARLES

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09/09/88	OIL L		CA/ LIQUIFACTION	A 55 GALLON DRUM OF OIL LOCATED AT THE PORTABLE 250# COMPRESSOR WAS PUNCTURED AND ABOUT 2/3 OF ITS CONTENTS LEAKED OUT. SUSPECT PUNCTURE WAS DUE TO CONTRACTOR EQUIPMENT.	DRUM STORAGE WAS MOVED TO A MORE SECURE AREA. A PERMANENT INSTALLATION WILL BE COMPLETED BY NOV. 30, 1988, AND THE PORTABLE COMPRESSOR WILL BE REMOVED.
Fri	24(?) lbs.				
SHIFT 2					
09/13/88	HCl L		B/ VC-11	LEAK OCCURRED IN PRIMARY SCRUBBER EFFLUENT LINE FROM VC-11 INCINERATOR. APPARENT CAUSE WAS LINE EXPANSION THAT PUT THE FLANGED JOINT IN A STRAIN. LINE BROKE AT A FLANGE.	FLANGES THAT WERE IN A BIND WERE REMOVED AND THE SECTION OF PIPE WAS FABRICATED AND REPAIRED AND MADE A LITTLE SHORTER IN LENGTH. INSPECTION OF THE PIPE RACK WILL CONTINUE ON A REGULAR BASIS
Tue	333 lbs.				
SHIFT 2					
09/15/88	CHLORINE G		B/ EDC	WHILE HEATING #3 EDC REACTOR FOR START-UP Hg CELL CUT IN/OUT CELLS CAUSING AN UPSET IN CHLORINE PURITY. CHLORINE BROKE THROUGH REACTOR TO SCRUBBER AND SOME ESCAPED THE SCRUBBER.	A QAT WILL BE COMMISSIONED BY K. EZELLE TO DEAL WITH THE CONDITIONS WHICH CAN CAUSE A RELEASE OF THIS TYPE.
Thu	5 lbs.				
SHIFT 3					
09/15/88	NaOH L		SILICAS	PAINTER WAS PAINTING #3 CCD TANK. AS HE WAS MOVING MANLIFT, MANLIFT BUMPED A 3 INCH VALVE ON SIDE OF TANK NEAR THE BOTTOM AND BROKE IT OFF.	A PLUG WAS INSERTED INTO THE BROKEN PIPE. A SPOOL PIECE AND BLIND WERE BOLTED OVER THE PLUG FOR A PERMANENT SEAL.
Thu	634 lbs.				
SHIFT 2					
09/20/88	BUTYLENE OXIDE L		B/ TE-11	WHILE PUMPING BLM INTO A PRODUCT TANK, A DRAIN VALVE ON THE TRANSFER LINE WAS LEFT OPEN AND SPILLED MATERIAL TO A PAD.	SURVEY LINES THROUGHOUT THE UNIT AND INSTALL PLUGS ON DRAINS AND BLEEDS. COUNSEL THE RESPONSIBLE OPERATOR STRESSING THE NEED OF BEING MORE CAREFUL WHEN BEGINNING TO PUMP STAB.
Tue	172 lbs.				
SHIFT 3					
09/20/88	NaOH L		CA/ ELECTRO C	TWO 4 INCH FLANGES BROKE OFF OF THE CELL LIQUOR HEADER UPSTREAM OF CIRCUIT 13 SOUTH CELL LIQUOR TANK. RELEASE WAS CAUSED BY DETERIORATION OF EPOXY PIPING AND EVENTUAL FAILURE.	A SECTION OF THIS HEADER WAS REPLACED AND A WORK ORDER WAS WRITTEN TO CHANGE THE REMAINDER OF THE HEADER.
Tue	48.2 lbs.				
SHIFT 2					

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SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
09/23/88 Fri SHIFT 3	SULFUR CHLORIDE G 70 lbs.		CA/ LIQUIFACTION	THE SULFUR CHLORIDE AFTER COOLER FEED LINE DEVELOPED A HOLE AT THE FEED VALVE.	SECTIONS OF SULFUR CHLORIDE WHICH ARE EXPOSED TO HOT MONOCHLORIDE ARE BEING CHANGED TO MONEL.
09/26/88 Mon SHIFT 2	CLHC L 5119 lbs.	DEQ/MRC CLHC 5119 lbs.	B/ VC-11	ORGANICS FROM A HEAVIES STILL WATER FLUSH BACKED INTO THE HOLE WHERE A NEW SUMP WAS INSTALLED THROUGH A CRACK IN THE SEWER LINE NEXT TO THE NEW SUMP.	THE LEAKING SEWER LINE WILL BE UNCOVERED TO A GOOD SECTION AND A DERAKANE SPOOL INSTALLED TO REPLACE THE LEAKING SECTION. DISCUSSION WILL BE MADE WITH FIELD ENGINEERS RE WORKING NEAR PIPE.
10/03/88 Mon SHIFT 3	METHYLCHLOROFORM L 162 lbs.		B/ TE-11	THE SPEC-12 TANK SAMPLE POINT WAS LEFT OPEN AFTER PUTTING THE TANK BACK INTO SERVICE. AS THE TANK WAS FILLED, PRODUCT SPILLED OUT OF THE SAMPLE POINT ONTO THE PAD.	POLICY OF INSTALLING PLUGS IN DRAIN VALVES WILL CONTINUE TO BE PURSUED UNTIL COMPLETED. RESPONSIBLE PARTY COULD NOT BE ASCERTAINED.
10/06/88 Thu SHIFT 2	HCL L 10 lbs.		B/ EC/HCL	A WARPED KYNAR FLANGE BROKE THE SEAL BETWEEN FLANGES CAUSING A WEAK ACID LEAK TO THE GROUND.	VISUAL INSPECTION OF FLANGES FOR LEAKS WILL CONTINUE TO BE MADE DURING ROUNDS. OTHER KYNAR FLANGES WITH POTENTIAL TO DEFORM WILL BE CHECKED AND REPAIRED AS NECESSARY.
10/07/88 Fri SHIFT 2	HCL L 46 lbs.		CA/ C ELECTROL.	CIRCUIT 11 CHLORINATED CONDENSATE STRIPPER OUTLET WAS PLUGGED WITH SALT. WHEN CLEARING THE PLUG, A MIXTURE OF CONDENSATE, BRINE, AND HCL SPILLED TO THE GROUND.	A WORK ORDER WAS WRITTEN TO CURB AREA TO DIRECT FLOW TO PROCESS SUMP RATHER THAN SURFACE DRAINAGE.
10/09/88 Sun SHIFT 1	SULFUR CHLORIDE L 60 lbs.		CA/ LIQUIFACTION	IN PROCESS OF CLEARING A LINE OF S2CL2, MATERIAL LEAKED FROM A FLANGE WHEN THE PIPING SHIFTED AS THE FLANGE WAS BROKEN. MATERIAL WENT TO A DITCH.	PE (NO ACTION PLAN FILED.)

SL 085757

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
10/17/88 Mon SHIFT 3	CHLORINE G 23.7 lbs.	NRC CHLORINE 23.7 lbs.	B/ VC-11	COMPUTER PROBLEMS TRIPPED THE LP-EDC REACTOR. THE CHLORINE PCV ON THE SURGE DRUM DID NOT IMMEDIATELY CLOSE ALL THE WAY CAUSING THE SRV TO RELIEVE.	DISCUSSION WILL BE HELD WITH THE COMPUTER GROUP TO SEE IF THERE IS A WAY TO DISABLE THE CHLORINE FLOW SYSTEM AND NOT INTERFERE WITH THE REST OF THE PLC SYSTEM.
10/20/88 Thu SHIFT 2	CHLORINE G 66.6 lbs.	DEQ/NRC CHLORINE 66.6 lbs.	CA/ POWERHOUSE C	A 1/4 INCH HOLE DEVELOPED IN THE CHLORINE SUPPLY LINE TO THE SABINE WATER CLARIFICATION UNIT. THE HOLE WAS CAUSED BY EXTERNAL CORROSION.	THE CHLORINE SUPPLY LINE WAS REPLACED. PROPER PIPE SUPPORTS WERE USED.
10/21/88 Fri SHIFT 3	PERCHLOR L 975 lbs.		B/ PER/TRI	THE PER 208 SHIPPING TANK OVERFLOWED DURING FILLING. VISUAL ALARMS ON THE CONTROL PANEL FAILED TO WORK PROPERLY. SPILL WAS CONTAINED ON THE PAD.	FILLING OF THE 208 SHIPPING TANK WILL NOT EXCEED 26-0 FEET TOP OFF. WEEKLY ALARM CHECKLIST WILL BE CHANGED TO INCLUDE A LOW LEVEL ALARM CHECK STARTING 10-29-88.
10/31/88 Mon SHIFT 3	EDC/HCL/VC G 131 1/4/42 lbs.	DEQ/NRC VC 42.5 lbs.	B/ TE-11	A REPAIR DEVICE ON THE TE-11 QUENCH TOWER FLOAT CHAMBER DEVELOPED A LEAK. THE REPAIR DEVICE SEAL FAILED.	LEAKING BLOCK VALVES WERE REPLACED AS WERE THE 90'S ON THE FLOAT CHAMBER. THE FLOAT CHAMBER SECTIONS WERE REPLACED WITH INCONEL LINED PIECES TO TRY TO PREVENT INTERNAL CORROSION.
11/03/88 Thu SHIFT 2	EDC L 30 lbs.		SHIPPING/ DOCKS	CORROSION LEAK FROM 1/2 INCH VALVE ON GAUGE AT "A" DOCK.	A VALVE AND THE GAUGE WERE REPLACED IN THE LINE.
11/09/88 Wed SHIFT 1	CHLORINE G 2.5 lbs.		SHIPPING/ DOCKS	PINHOLE CORROSION LEAK IN BARGE LOADING LINE LOCATED ABOVE CAUSTIC DEPARTMENT.	ABOUT A 3 FT. SECTION OF PIPE WAS REPLACED. NEW LOADING LINES WILL BE IN SERVICE BY 12-21-88.

SL 085758

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
11/10/88 Thu SHIFT 3	NATURAL GAS G 416 lbs.		CA/ POWER	CUT BACK IN POWER LOAD DUE TO Hg CELL REDUCING DEMAND RESULTED IN INCREASED NATURAL GAS PRESSURE IN COMOCO HEADER AND INTERMITTANT LIFTING OF THE SRV.	NO CHANGES PLANNED. SRV RELIEVED AS DESIGNED.
11/11/88 Fri SHIFT 3	PERCHLOR L 16 lbs.	DEQ/NRC PERCHLOR 16 lbs.	B/ PER/TRI	WHILE PRESSURE CHECKING A 1 INCH STABILIZING LINE, A LEAK DEVELOPED IN THE LINE. ABOUT 1-2 GALLONS OF PERCHLOR LEAKED TO THE GROUND.	ENTIRE LINE TO BE REPLACED BY 12-15-88. AFTER INSTALLATION OF A SEPTIC TANK, THE ENTIRE SHELLED AREA BENEATH THIS PIPE RACK WILL BE CONCRETED IN AN EFFORT TO PREVENT LEAKS TO THE SOIL.
11/12/88 Sat SHIFT 2	EDC/HCL/C2H4 G 5.5/13.8/8.3 lbs.		B/ EDC	VENT LINE TO #2 EDC SCRUBBER BLEW A HOLE IN IT WHEN VENTS WERE TRIPPED TO CONTROL SYSTEM PRESSURE.	LEAKING HEADER WAS REPLACED WITH A NEW ONE.
11/17/88 Thu SHIFT 2	GROUNDWATER L 2485 lbs.	DEQ/NRC F024 2485 lbs.	B/ WTU	A HOLE DEVELOPED IN THE SIDE OF THE AIR EJECTOR CAN AT #3 DEEP WELL AT SO. TERM. WHEN WELL PRESSURIZED, WATER WAS FORCED OUT OF THE WELL CASING RATHER THAN THE DISCHARGE PIPE. (ONLY 0.2# CLINC)	PERFORM PERIODIC INSPECTION OF AIR EJECTOR CAN WHENEVER PUMP IS PULLED. PERFORM RANDOM THICKNESS READINGS ON CAN TO TRACK CORROSION.
11/18/88 Fri SHIFT 2	CPC/DCPC L 22.5/27.5 lbs.		B/ WTU	BLEED ON CPC INCINERATOR FEED PUMP BLEW OFF DUE TO CORRODED THREADS. RELEASE WAS TO THE PAD.	BLEEDS ON INCINERATOR FEED PUMP BOWL AND REACTOR FEED PUMP BOWL HAVE BEEN REPLACED WITH STAINLESS STEEL.
11/21/88 Mon SHIFT 3	THERMALANE L 210 lbs.		B/ TE-11	OPERATORS WERE CLEARING #4 OHC REACTOR PIPING TO THERMALANE STORAGE TANK. TANK OVERFILLED. OPERATOR WAS WATCHING SIGHT GLASS BUT COULD NOT BLOCK IT OFF BEFORE SPILL OCCURRED.	OPERATOR COUNSELLED TO FOLLOW THE LEVEL CLOSER WHEN FILLING THE TANK. SOP WILL BE REVISED TO RESTRICT FILLING STORAGE TANK INTO THE TOP SECTION OF THE SIGHTGLASS.
11/21/88 Mon SHIFT 2	METHYLCHLOROFORM L 55 lbs.		SHIPPING/ DOCKS	LEAKING VALVE BONNET GASKET ON LINE BETWEEN TRI-ETHANE TANK AND "E" DOCK WAS DUE TO TEMPERATURE FLUCTUATIONS CAUSING PRESSURE TO BUILD UP IN LINE.	VALVE WAS REPLACED 11-22-88.

SL 085759

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
11/22/88 Tue SHIFT 2	NaOH L 300 lbs.		SHIPPING/ DOCKS	WHILE FILLING ET-50 CAUSTIC LINE FOR BARGE LOADING, CAUSTIC OVERFLOWED THE "C" DOCK SUMP BECAUSE OF A DRAIN VALVE BEING LEFT OPEN.	A WORK ORDER HAS BEEN WRITTEN TO REPLACE THE DRAIN LINE VALVES WITH BUTTERFLY TYPE VALVES.
11/29/88 Tue SHIFT 3	ClHC L 30 lbs.	DEQ/NRC TCE/UNSYM/etc. 20.1/2.4/2.4 lb	B/ WTU	WHILE UNLOADING A TANK TRUCK OF TCE, AN OPERATOR OPENED THE UNLOADING SCREEN WITHOUT FIRST CLOSING THE BLOCK VALVE ON THE TRUCK SIDE OF THE SCREEN. ABOUT 3 GALLONS SPILLED TO THE GROUND.	INCIDENT WAS REVIEWED WITH THE OPERATOR ON 11-30-88 WITH EMPHASES ON PREVENTING THIS TYPE OF ERROR IN THE FUTURE.
11/30/88 Wed SHIFT 2	ClHC/HCl G 54.7/8.9 lbs.	DEQ/NRC PERCHLOR 34.7 lbs.	B/ PER/TRI	A LEAK DEVELOPED IN THE BOTTOM CONE OF THE #3 PER/TRI REACTOR CYCLONE. THE LEAK WAS CAUSED BY INTERNAL CORROSION/EROSION	THE CYCLONE WILL BE REMOVED AND REPLACED. THE FAILED CYCLONE WILL BE AUTOPSIED. UNIT IS IN THE PROCESS OF A MATERIAL AND DESIGN CHANGE ON THE CYCLONE CERAMIC INSERTS TO IMPROVE PERFORMANCE.
12/02/88 Fri SHIFT 2	NaOH L 600 lbs.		SHIPPING/ A	EXPANSION BELLOWS ON PUMP SUCTION LINE BETWEEN HG 1 CAUSTIC TANK AND TRUCK LOADING PUMP RUPTURED. CAUSTIC WENT TO SEWER AND GROUND.	PUMP PAD WAS IN BAD CONDITION. A WORK ORDER HAS BEEN WRITTEN TO REPAIR THE PAD.
12/03/88 Sat SHIFT 2	CHLORINE G 800 lbs.	DEQ/NRC/LASP CHLORINE 800 lbs.	CA/ C ELECTROLY.	A POWERHOUSE STEAM UPSET RESULTED IN THE CHLORINE COMPRESSORS TO QUIT PUMPING. WITH CHLORINE GOING TO THE NEUTRALIZER, PRIMARY CAUSTIC FLOW DROPPED CAUSING CHLORINE TO EXIT THE STACK.	PROOF TESTING WILL BE FOLLOWED. CHANGES TO THE WINTERIZATION SYSTEM OPERATION WILL BE MADE. THE NEUTRALIZER INTERNALS WILL BE INSPECTED ANNUALLY.
12/08/88 Thu SHIFT 2	CHLORINE G 20 lbs.	NRC CHLORINE 20 lbs.	CA/ C ELECTROLY.	AN INSTRUMENT MAN WAS WORKING ON THE CHLORINE COMPRESSOR SUCTION PRESSURE CONTROLLER. AS A RESULT CONTROLLER WOULD NOT RESPOND, SYSTEM PRESSURE INCREASED, AND CHLORINE BLEW SEALS.	THE INSTRUMENT MECHANICS WILL FOLLOW THE TAGGING PROCEDURES FOR INSTALLING INSTRUMENT CLEARANCE TAGS ON SHUTDOWNS AT "C" CHLORINE.

SL 085760

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
12/10/88 Sat SHIFT 2	CHLORINE G 6.3 lbs.		CA/ Hg CELL	A CORROSION HOLE DEVELOPED ON ELBOW WHERE TAIL GAS HEADER AND SHIPPING BLOWDOWN LINE TIE TOGETHER JUST BEFORE THE Hg CELL NEUTRALIZER.	THIS LINE WAS REPLACED WITH A LINED STEEL PIPE.
12/13/88 Tue SHIFT 3	CLHC G 152.2 lbs.		B/ WTU	DUE TO A FAILED TEMPERATURE PROBE, ORGANICS WERE SENT TO THE CSS FEED TANKS BY VDCM. CONTENTS OF FEED TANKS WERE HOT ORGANICS CAUSED TANK TO OVERPRESSURIZE AND RUPTURE DISC BLEW.	EXISTING TEMPERATURE INDICATOR AND ALARM WERE REPAIRED ON 12-14-88. SOP WILL BE CHANGED TO INSURE ORGANICS GO TO THE LIFT STATION HEADER IN THE FUTURE INSTEAD OF THE CSS.
12/16/88 Fri SHIFT 2	PERCHLOR L 3.4 lbs.	DEQ/MRC PERCHLOR 3.4 lbs.	B/ PER/TRI	PER 208 TRANSFER LINE WAS BEING DRAINED BY SPREADING FLANGES. MECHANIC DID NOT NOTICE SPRAY OF PERCHLOR OVERSHOOTING DIKE WALL AS HE ADJUSTED BOLTS TO DRAIN THE LINE.	AN ENVIRONMENTAL TRAINING SCHOOL WAS HELD ON 01-17-89 FOR INSTRUMENT PEOPLE, MECHANICS, SWING CREWS, AND NORMAL P/T MAINTENANCE CREW.
12/20/88 Tue SHIFT 2	CHLORINE G 3 lbs.		CA/ Hg CELL	CHLORINATED BRINE OVERFLOWED FROM THE DEPLETED BRINE TANKS DUE TO A PUMP NOT OPERATING PROPERLY.	PUMP WAS OVERHAULED AND CLEARANCES RESET TO CORRECT CAPACITY PROBLEMS. INSTALLED A DEVIATION FROM SET POINT ALARM TO GIVE EARLIER WARNING ON TANK LEVEL.
12/21/88 Wed SHIFT 1	HCL G 311 lbs.	DEQ/LASP HCL 311 lbs.	B/ TE-11	#4 OHC RX TRIPPED. WHILE OPENING THE VENT VALVE TO THE OHC SCRUBBER, THE 10 INCH RUPTURE DISC BLEW. DRAINING LIQUID FROM PIPING UPSTREAM OF THIS VALVE WAS INSUFFICIENT IN THIS CASE.	ENTIRE CONDENSING TRAIN WAS THOROUGHLY FLUSHED. PULLED HEAD ON SECONDARY AND RD ON TERTIARY TO VERIFY GOOD FLOW WAS POSSIBLE. WILL CHECK SCRUBBER LINE FOR LIQUID 2X PER SHIFT AT STARTUP.
12/22/88 Thu SHIFT 2	HCL/CLHC G 13.1 lbs./51.5 lbs		B/ PER/TRI	TWO INCH RUPTURE DISC ON THE N. ON FEED TANK WAS RELIEVING. MOST LIKELY PREMATURE FAILURE OF DISC. DISC SET TO BLOW AT 15 PSIG; VENT HEADER AT ONLY 4 PSIG WHEN DISC BLEW.	RUPTURE DISCS WILL BE REPLACED ANYTIME TANK IS TAKEN OUT OF SERVICE AND OPENED FOR CLEANING/INSPECTION WITH A FREQUENCY FOR DISC REPLACEMENT OF AT LEAST ONCE EVERY 12 MONTHS.

SL 085761

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT	AREA	DESCRIPTION	CORRECTIVE MEASURES
12/23/88	CINC/ WATER L	DEQ/NRC	B/ WTU		SUCTION HEADER OF WTU FEED PUMP WAS	CHECK SUSPECTED BLOCK VALVE FOR RELIABLE
Fri	27.3/11923 lbs.	F024			PLUGGING. MECHANICS ROLLED SPOOL FROM	OPERATION. REPLACE IF NECESSARY. STRESS
SHIFT 2		11950 lbs.			THE PUMP SUCTION CAUSING A PLUG TO	WITH LEAD OPERATORS IMPORTANCE OF TAKING
					BREAK LOOSE. SLUDGE/WATER SPRAYED	EXTRA EFFORT TO DOUBLE BLOCK WHEN
					FROM SUCTION LINE TO GROUND.	CONVENIENT.

SL 085762

FIGURE 1

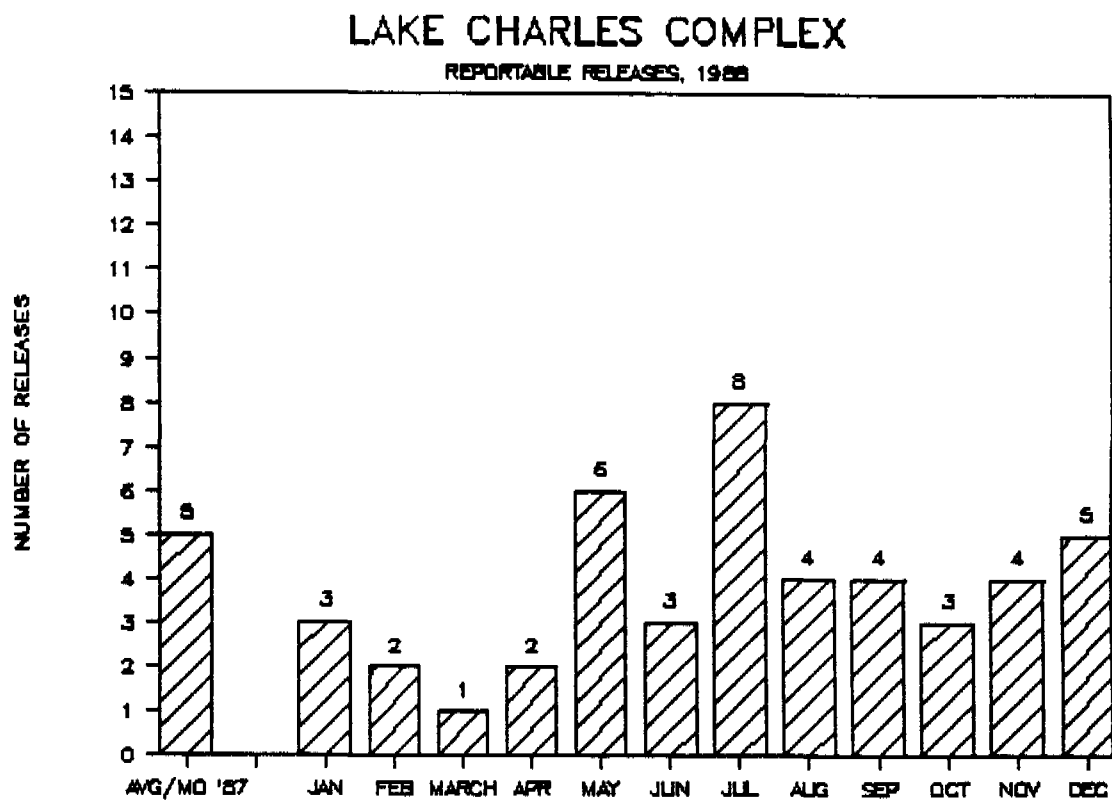
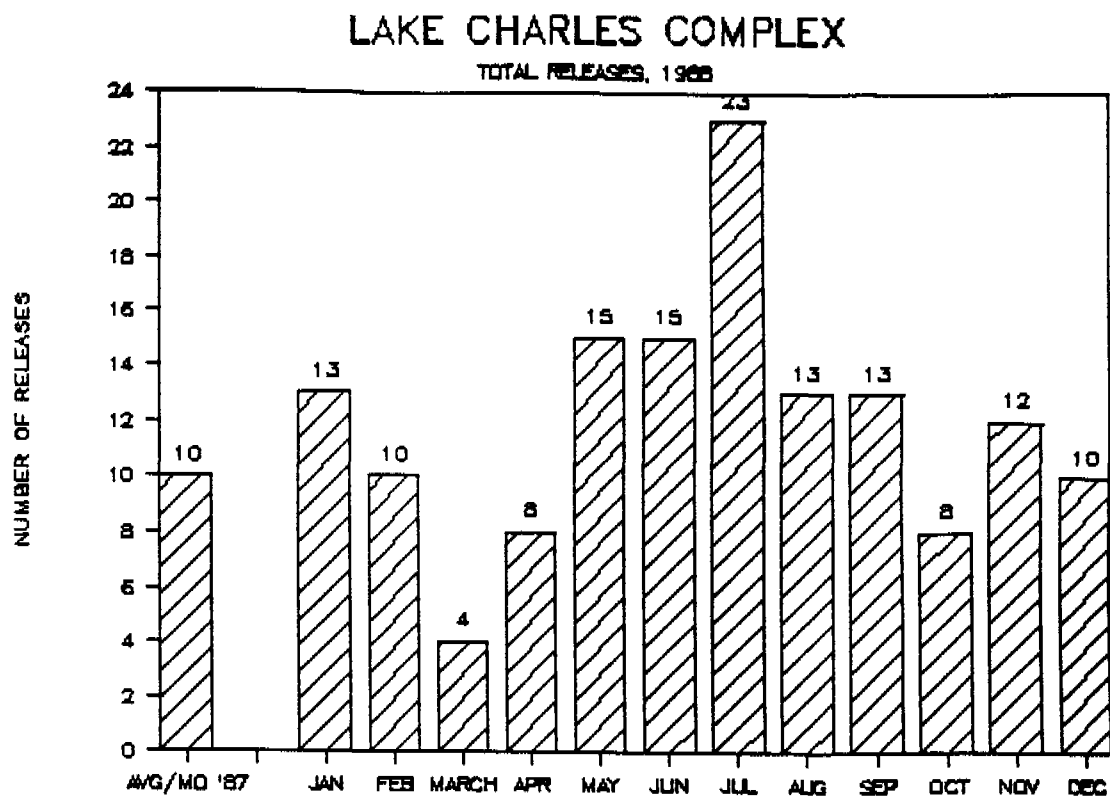


FIGURE 1

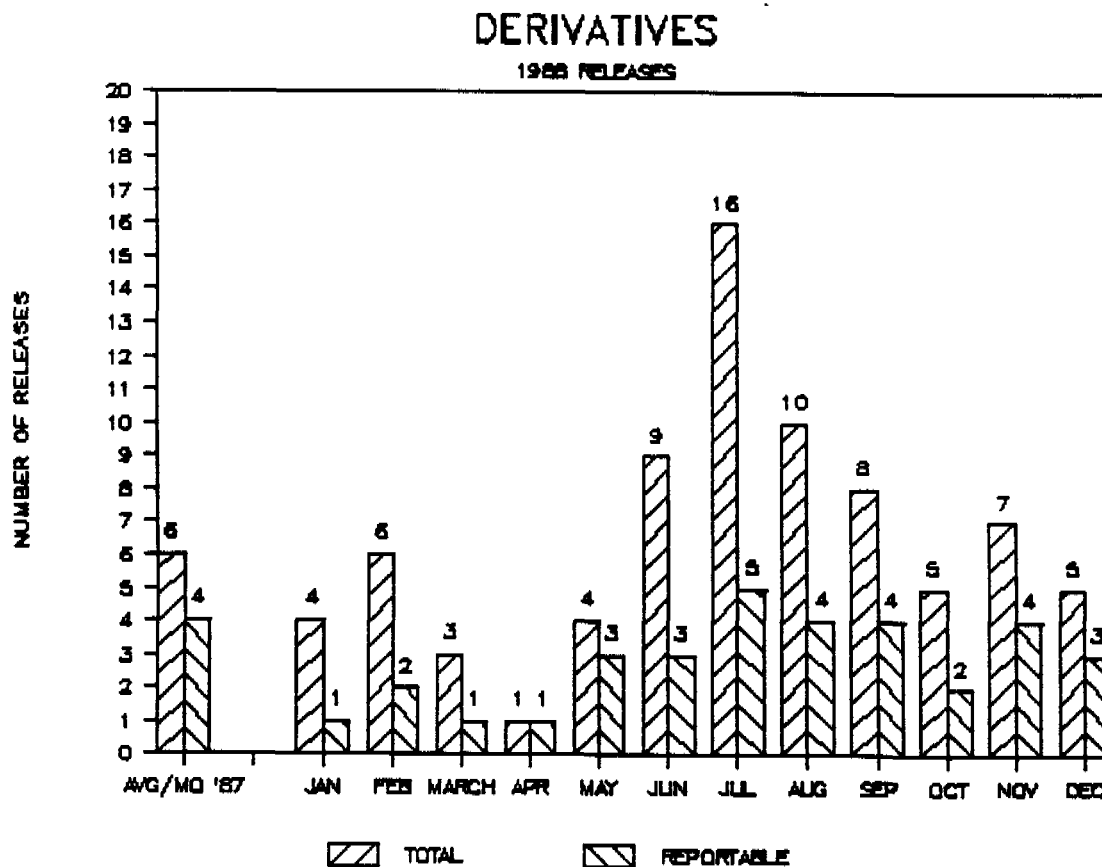
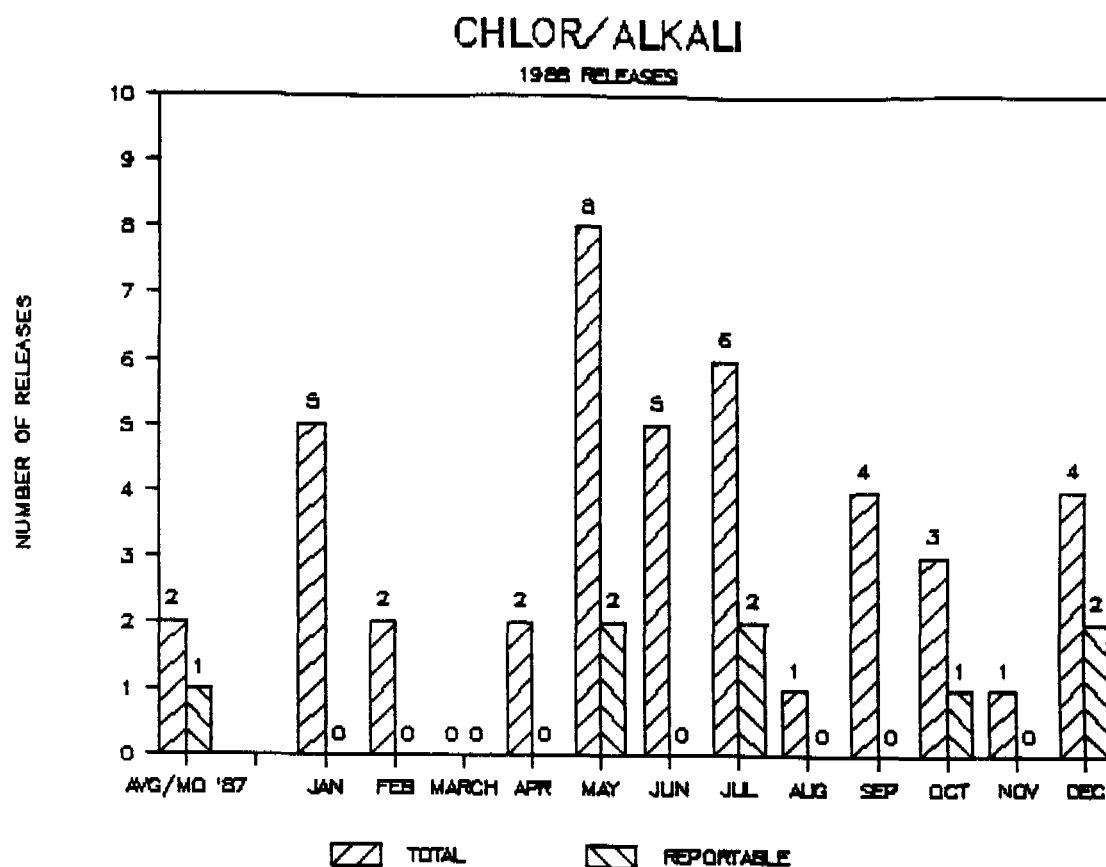
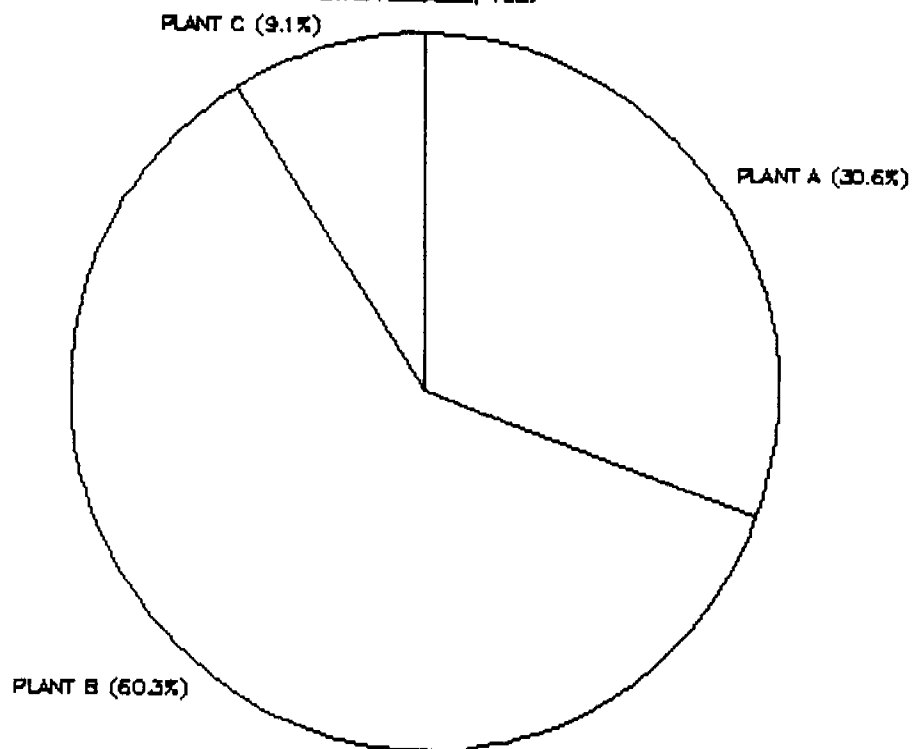


FIGURE 3

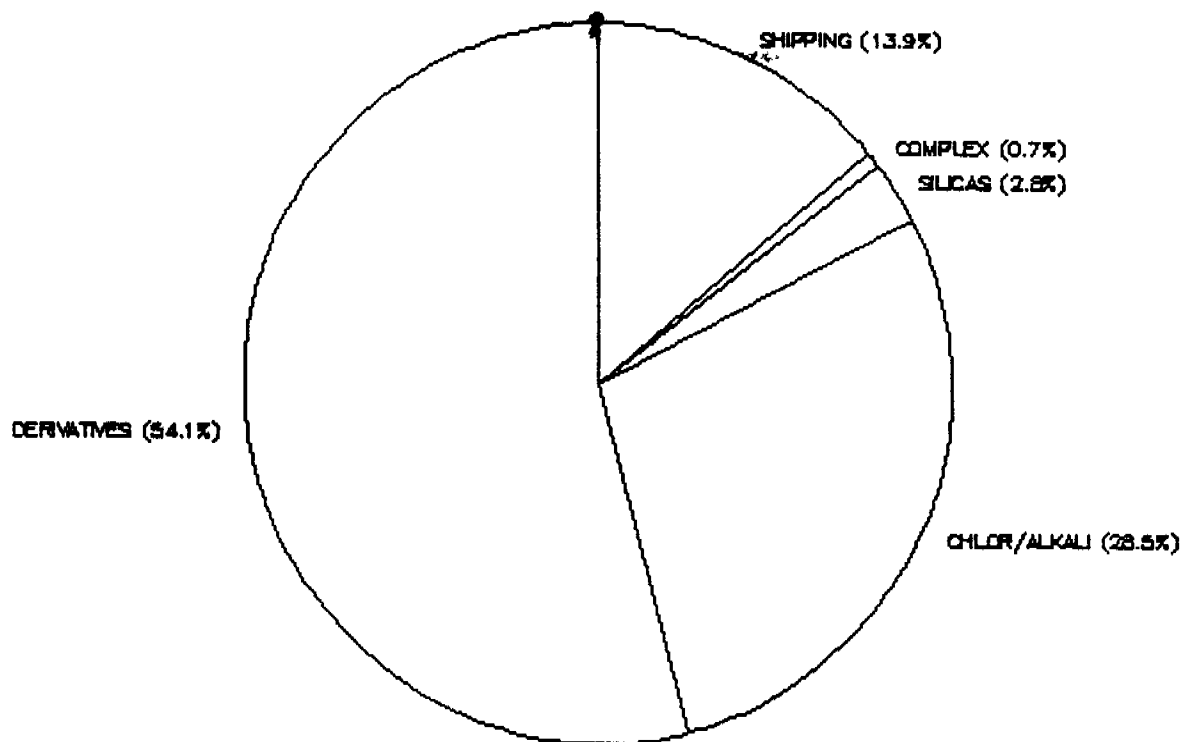
LAKE CHARLES COMPLEX

TOTAL RELEASES, 1967



LAKE CHARLES COMPLEX

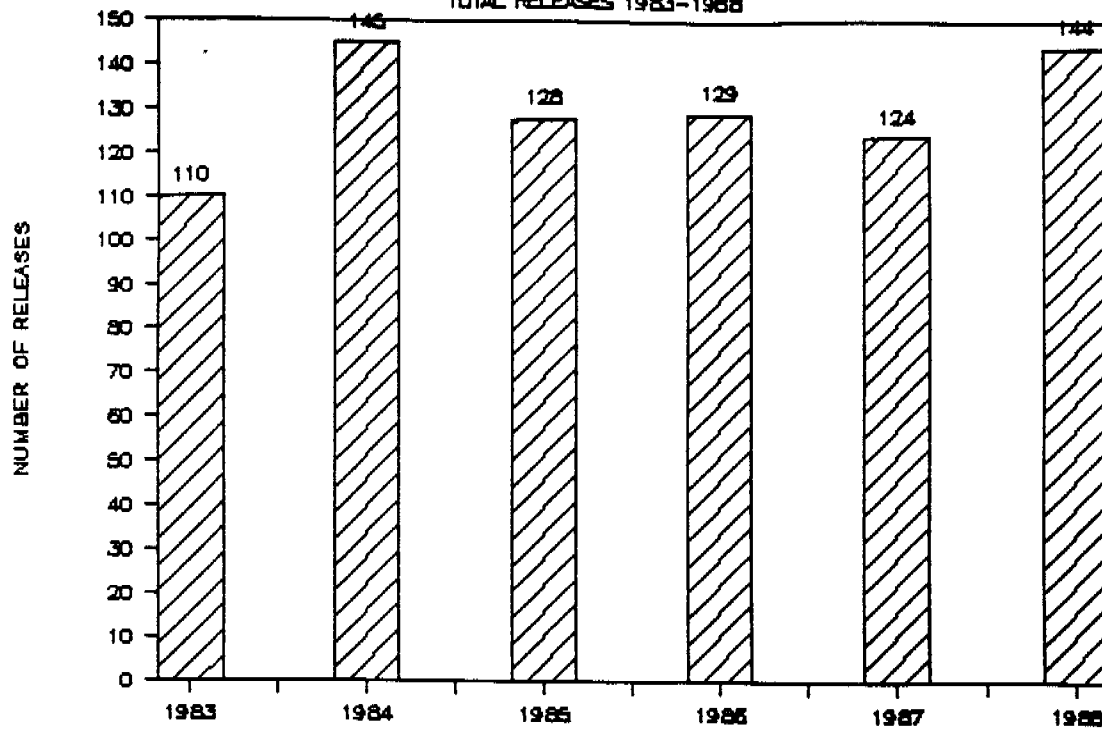
TOTAL RELEASES 1968



SL 085765

LAKE CHARLES COMPLEX

TOTAL RELEASES 1983-1988



LAKE CHARLES COMPLEX

REPORTABLE RELEASES, 1983-1988

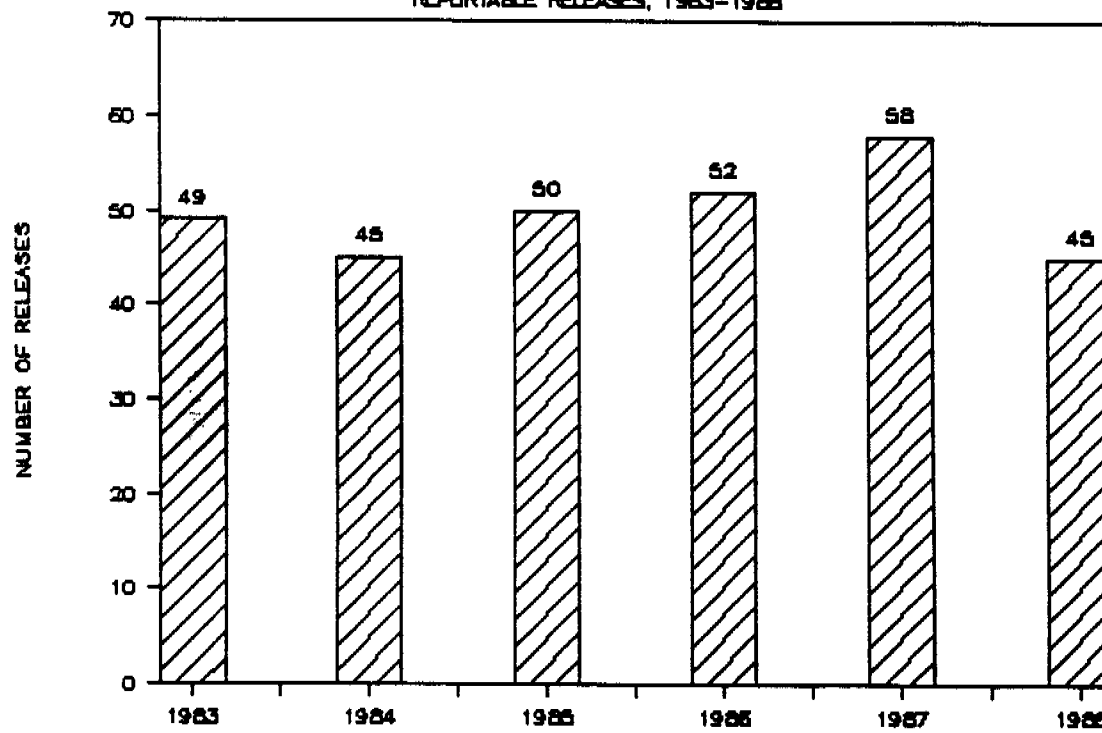
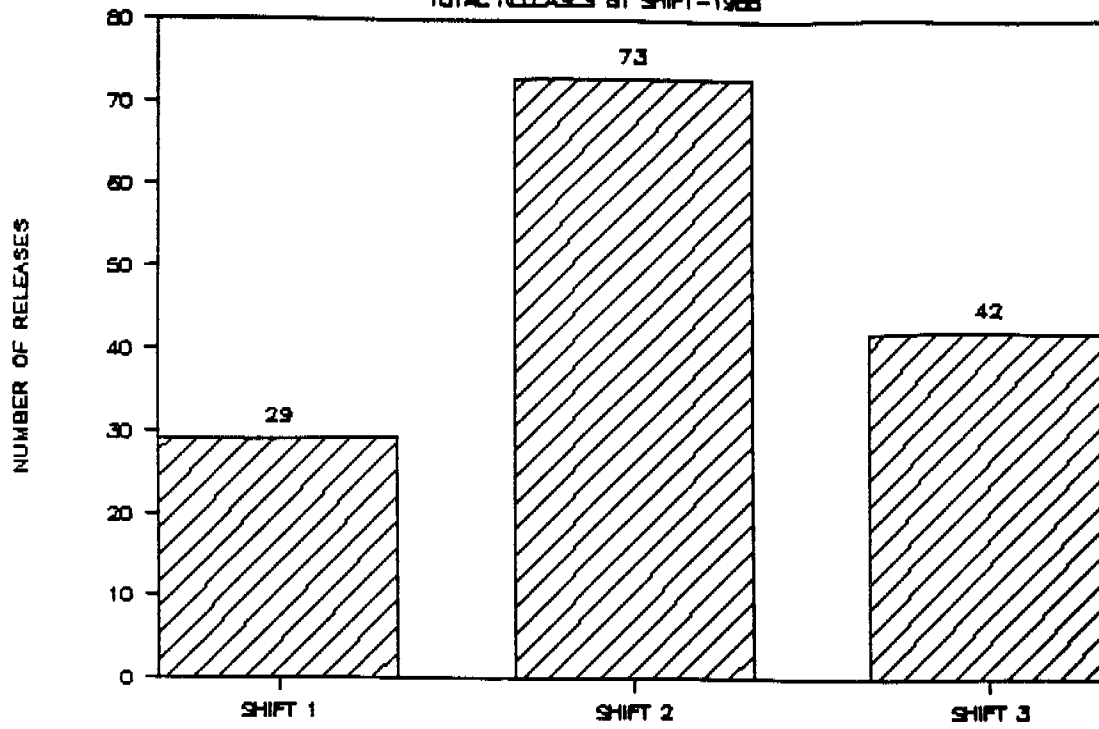


FIGURE 5

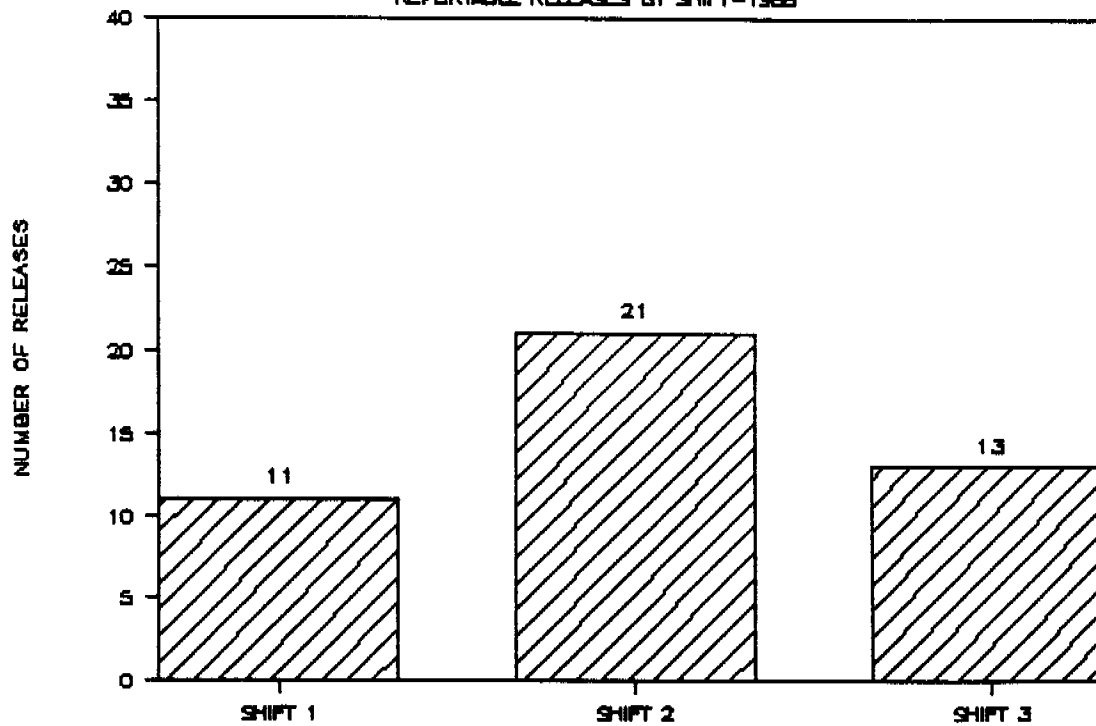
LAKE CHARLES COMPLEX

TOTAL RELEASES BY SHIFT-1988



LAKE CHARLES COMPLEX

REPORTABLE RELEASES BY SHIFT-1988

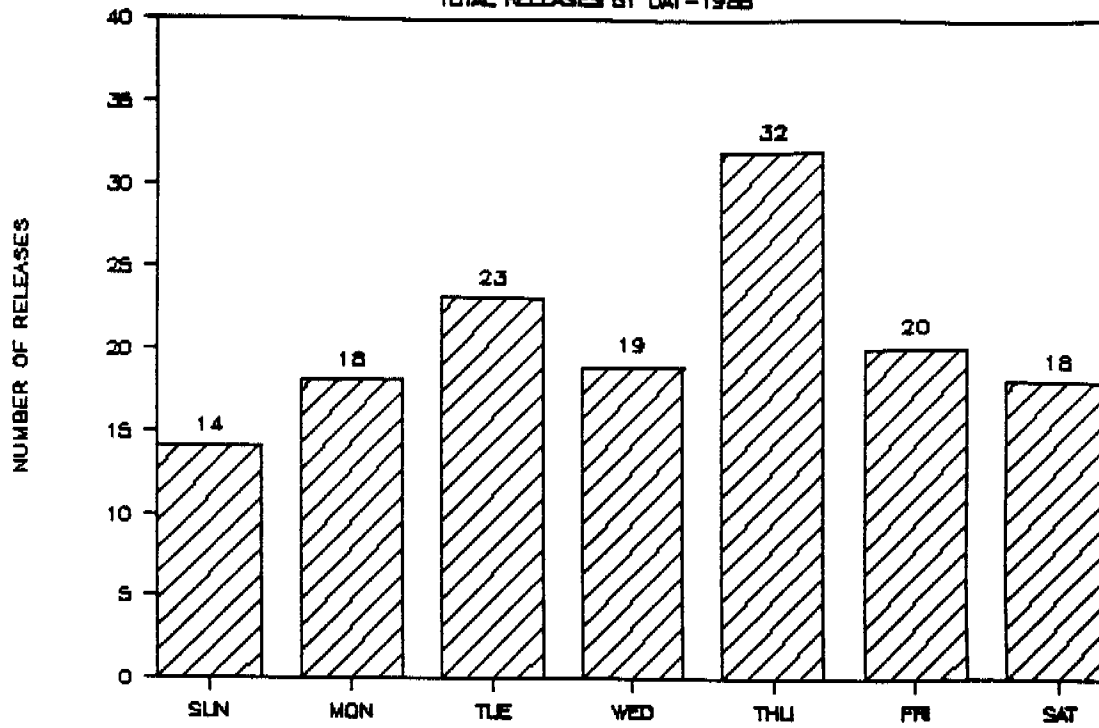


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FIGURE 6

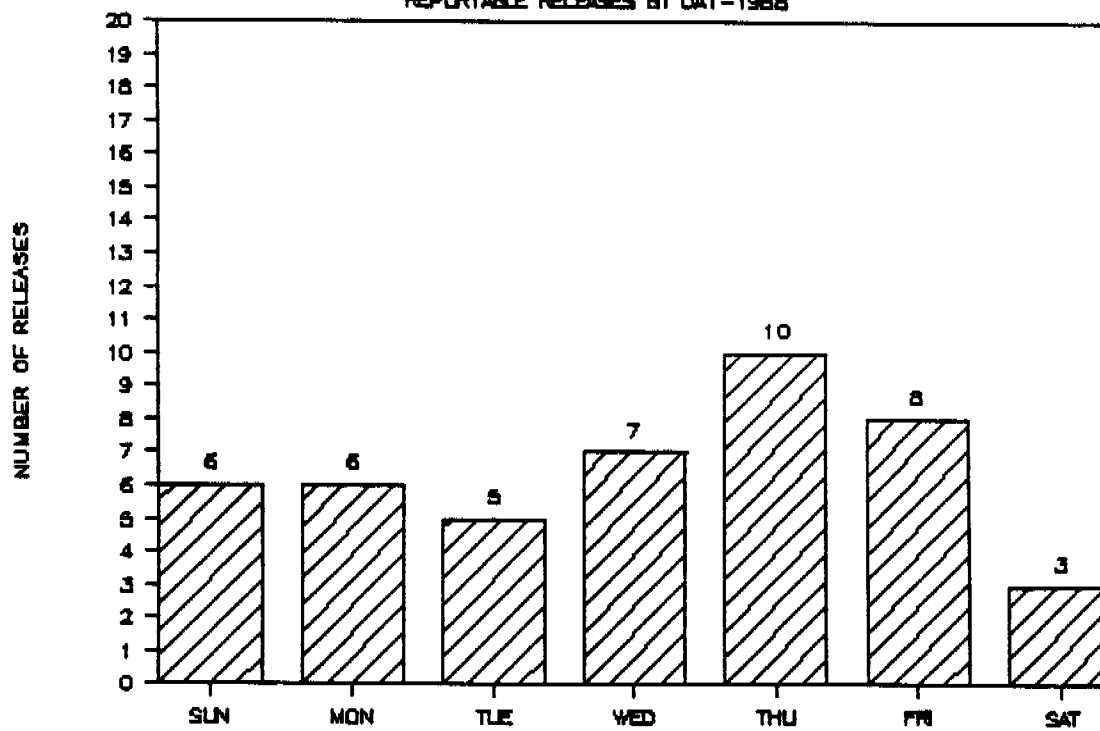
LAKE CHARLES COMPLEX

TOTAL RELEASES BY DAY-1988



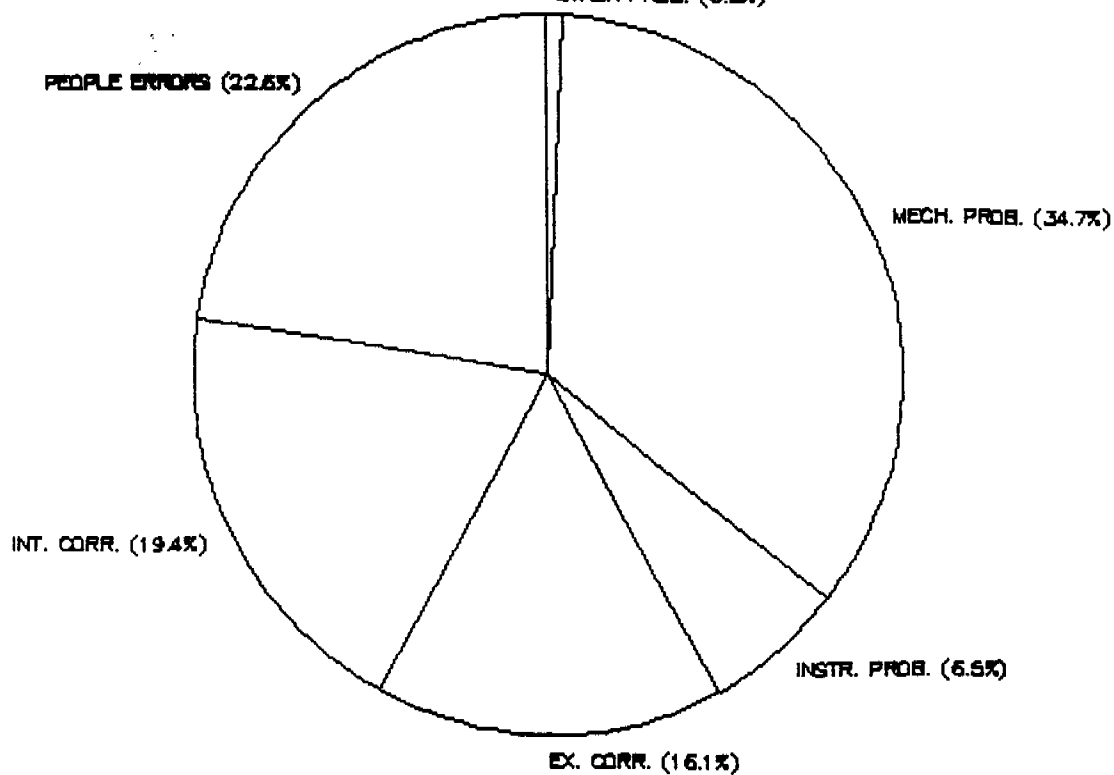
LAKE CHARLES COMPLEX

REPORTABLE RELEASES BY DAY-1988



LAKE CHARLES COMPLEX

CAUSES FOR TOTAL RELEASES 1987
OTHER PROB. (0.8%)



LAKE CHARLES COMPLEX

CAUSES FOR TOTAL RELEASES 1988

