

DATE: JANUARY 12, 1990

SUBJECT: SPILLS AND RELEASES,
1989

Attached for your review is a summary of the spills and releases which occurred at the Lake Charles Complex during 1989 (Attachment I). Included are the December incidents which are broken down into the following causes:

	Releases <u>Dec., 1989</u>	1989 <u>Total</u>	1988 <u>Total</u>	People <u>Error</u>	Mech <u>Prob.</u>	Instr <u>Prob.</u>	Int. <u>Corr.</u>	Other <u>Problem</u>
Total	11	106	144	4	2	1	1	3
Reportable	3	32	45	2	0	0	1	0

Several changes have been made this year concerning spill reporting guidelines. These changes include a revised internal definition of a leak which now requires reporting all leaks whether to containment or to the ground. This change will only affect the total number of releases and not the number of reportable releases. The number of reportable and total releases will be affected (increased) by the action of the EPA in lowering the reportable quantity on several chemicals which we have in this complex. Even with these changes, the 1989 Complex spill record shows improvement over previous years and is expected to continue to improve due to an increased environmental awareness and diligent effort by all workers.

Figure 1 represents the 1989 total/reportable spill record for the complex on a month by month basis. The average number of total releases per month in 1989 was 9 compared to 12 in 1988. This represents a 26% decrease in total releases. The average number of reportable releases per month in 1989 was 3 compared to 4 in 1988. This represents a 29% decrease in reportable releases which is a significant achievement. A goal for 20% reduction in releases has been set for 1990.

Figure 2 illustrates the complex spill/release record since 1985. This graph further demonstrates the reduction made in release incidents in 1989 (both total and reportable).

Figure 3 depicts the releases by month from the Chlor/Alkali and Derivatives areas in 1989. The remainder of the releases not shown occurred in the Complex and Shipping areas.

The pie charts in Figure 4 compare the percentage of total releases attributable to each area of the complex in 1989 vs. 1988.

Figure 5 compares the breakdown of release incidents by causes in 1989 vs. 1988. A new category of "design problem" was added in 1989. This is one reason for the reduction seen in the releases

caused by "Other Problems". Releases caused by "People Errors" rose in 1989 from 29% to 33%. Because of the large number of people errors experienced, this category is now broken down into the areas of Operations, Maintenance, Construction, and Shipping personnel.

Figure 6 is an illustration of the amount of chemicals released to the environment due to spills/releases over the past three years. The total amount of chemicals released to the environment in 1989 showed a 5% increase from 1988 after the tremendous 80% decrease experienced in 1988. Also shown is a breakdown of the major chemicals released comparing 1988 to 1989 release figures. Each of these categories showed a reduction in the amounts released with the exception of chlorinated hydrocarbons and process wastewater. The amount of chlorinated hydrocarbons released increased by 28% in 1989. A single Perchlor spill of 8632 pounds accounts for 56% of the total pounds of chlorinated hydrocarbons released in 1989. The amount of process wastewater (corrosive hazardous waste) released to the environment increased by 12% in 1989. A single spill of 9098 pounds of wastewater at Tri-Ethane II accounts for 56% of the total wastewater spilled in 1989.

Figure 7 illustrates a breakdown by unit of 1988 and 1989 releases along with the number of incomplete corrective actions associated with these releases. Attachment II is a listing by incident of all incomplete corrective action items from 1/88 through 12/89. Special attention should be given to those releases with an asterisk by them. These signify reportable releases and also a corrective action which was reported to an agency as PPG's plan to prevent reoccurrence of that release. These items in particular should be given the priority they deserve to assure they are completed in a timely manner.

With an increased Environmental awareness by all employees in addition to the programs now in place and those planned for 1990, it is expected that the Lake Charles spill/release record will continue to improve during the upcoming year.

1890ESL/vc

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A T T A C H M E N T I

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT	AREA	DESCRIPTION	CORRECTIVE MEASURES
01/05/89 Thu	CLHC/WATER L 5.3/6530.7 lbs.	INTERNAL	B/	WTU	SANDBLASTERS PUT A HOLE IN B-1 LIFT STATION HEADER WHILE ATTEMPTING TO BLAST A RUST SPOT ON PIPERACK BENEATH IT. MATERIAL FROM HEADER DRAINED TO THE GROUND.	REVIEW POLICY AND PROCEDURES OF SAND-BLASTERS NEAR FIBERGLASS LINES WITH FIELD ENGINEERS BY 1-18-89. (PE) (DONE)
01/11/89 Wed	NATURAL GAS G 3000 lbs.	INTERNAL	CA/	POWERHOUSE	RIVERSIDE POWERHOUSE LOST A TURBINE BLADE. WHILE IN PROCESS OF UNIFORMLY TAKING TURBINE OFF-LINE, GAS PRESSURE INCREASED IN SYSTEM CAUSING SRV AT CONOCO LOW PRESSURE STA. TO RELIEVE.	DISCUSSED INCIDENT WITH SUPERVISION AT POWERHOUSE "C". (OP)
01/17/89 Tue	VDCM G 1030 lbs.	INTERNAL	B/	EDC	EXTERNAL CORROSION IN THE REWORK HEADER WAS RECOGNIZED BEFORE THE SPILL. BEFORE LINE COULD BE REPAIRED, IT WAS USED TO TRANSFER VDCM. COMMUNICATIONS REGARDING LINE CONDITION WERE POOR.	AREA FOREMAN AND OPERATORS WERE COUNSELLED TO IMPROVE COMMUNICATIONS. PIPE WILL BE REPLACED. (PE)
01/24/89 Tue	CLHC L 1423 lbs.	INTERNAL	B/	VC-II	REACTOR LIQUOR LEAKED OUT OF A DRUMMING HOSE FROM THE DOPP KETTLE. OPERATOR DID NOT NOTICE A BLOCK VALVE ON THE HOSE WAS PARTIALLY OPEN.	OPERATOR AND LEAD OPERATOR WERE ASKED TO * PREPARE SOP FOR PEOPLE AT VC-II TO USE WHEN EQUIPMENT IS PLACED IN SERVICE. OTHER ACTION MAY BE TAKEN. (PE)(OPS WERE GIVEN MINOR REPRIMANDS AND SOP WRITTEN)
01/25/89 Wed	CHLORINE G 465.4 lbs.	DEQ/NRC CHLORINE 465.4 lbs.	CA/	Hg CELL	SANDBLASTER PUT A HOLE IN INSTRUMENT SIGNAL TUBING TO NEUTRALIZER GAS EX-HAUSTERS. THIS RESULTED IN LOSS OF NEUTRALIZER INLET VACUUM AND DIVERSION TO RIVERSIDE PWRHSE STACK.	PM EXHAUSTER SUCTION VALVE ACTUATORS. (ONE COMPLETE). REVISE ACTION OF THE VALVES TO FAIL OPEN UPON LOSS OF SIGNAL OR AIR SUPPLY. MODIFY DIVERSION SYSTEM(PE)
01/30/89 Mon	CLHC/WATER G 0.1/1141.3 lbs.	INTERNAL	B/	WTU	RUPTURE DISC ON #1 CSS FEED TANK BLEW. SUSPECT PREMATURE FAILURE AS NO INDICATIONS OF EXCESSIVE TEMPERATURE OR PRESSURE IN THE TANK WERE OBSERVED.	REVIEW SOP'S REGARDING REMOVAL OF PHASE ORGANICS FROM FEED TANKS(DONE). REVIEW CONTRACT W/ OHC TO MINIMIZE PHASE ORGANIC ENTERING FD TKS(IN PROGRESS). DEV. CONTR W/ VDCM TO COOL BTMS. (COOLER INSTALLED)

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT	AREA	DESCRIPTION	CORRECTIVE MEASURES
02/02/89 Thu	HCL G 15.6 lbs.	INTERNAL	B/	WTU	#1 PER/TRI STEAM STRIPPER RUPTURE DISC BLEW PREMATURELY. BLEW AT 3.5 PSIG WHICH WAS ONLY 1 PSI ABOVE NORMAL OPERATING PRESSURE.	PROPER RUPTURE DISC INSTALLATION PROCEDURES WERE REVIEWED WITH MAINTENANCE. (MP)
02/03/89 Fri	NaOH L 200 lbs.	INTERNAL	CA/	PELS	STG. BIN #1, PLUGGED WITH WET PRILLED CAUSTIC, WAS BEING WASHED TO PELS SUMP. BREAKTHROUGH OF A PLUG AT THE BOTTOM DISCHARGE RELEASED A SURGE OF CAUSTIC WATER THAT OVERFLOWED CONTAINMENT.	PROC. FOR WASHING OUT A PLUGGED BIN TO BE REVIEWED WITH PACKERS. (MP) EVALUATE DETECTION DEVICES TO ALRM WHEN WET MATL ENTERS BUCKET ELEVATOR. QAT TO DEFINE CHANGES TO PREVENT WET MATL ENTERING.
02/03/89 Fri	CLHC L 30 lbs.	DEQ/NRC PER/HCB0 1.7 / 1.3 lbs.	B/	PER/TRI	AS APOLLO KNOCKOUT POT WAS BEING LIFTED OFF ITS FOUNDATION, LIQUID SPILLED TO THE GROUND. APPARENTLY, A PLUG IN THE NOZZLE CAME LOOSE RELEASING LIQUIDS.	INSTALL A CONCRETE PAD LARGE ENOUGH TO COVER AREA UNDER THIS PROCESS VESSEL. (PE) -COUNSELED EMPLOYEE. INSTALLED FURAN PAD UNDER THIS VESSEL.
02/06/89 Mon	CHLORINE G 2.8 lbs.	INTERNAL	CA/	Hg CELL	CHLORINATED CONDENSATE DRAIN LINES PLUGGED CAUSING CHLORINE HEADER PRESSURE TO SWING. CHLORINE BLOWER TRIPPED CAUSING PRIMARY SEAL TO BLOW AND A SMALL RELEASE FROM NEUTRALIZER.	DRAIN LINES HAVE BEEN TAKEN APART AND CLEANED. A WARNING LIGHT FOR LOW CHLORINE BLOWER AND CENTRIFUGAL SPEEDS WILL BE INSTALLED.(OP)-DONE-LOW STM DRAW ALRMS BLWR TRIP & RPM ALRMS CENTRF. TRIP
02/07/89 Tue	CHLORINE G 8 lbs.	INTERNAL	CA/	A ELECTRO.	IMPULSE LINE TO CIRCUIT 16 CHLORINE PRESSURE TRANSMITTER FROZE. PCV CLOSED CAUSING CHLORINE TO BLOW THROUGH SEALS ON TWO PUMP TANKS.	LINE WAS TEMPORARILY INSULATED AND HEAT TRACED. WORK ORDER WRITTEN TO DO PERMANENT JOB BEFORE NEXT WINTER. (IP) (IN PROGRESS)
02/07/89 Tue	CHLORINE G 500 lbs.	DEQ/NRC CHLORINE 500 lbs.	CA/	A ELECTRO.	IMPULSE LINE TO CIRCUIT 16 CHLORINE PRESSURE TRANSMITTER FROZE CAUSING LOSS OF CONTROL ON CIRCUIT. WHILE TRYING TO FIND PROBLEM, NEUTRALIZER WAS DEPLETED OF CAUSTIC RELEASING CHLORINE.	ELECTRICAL HEAT TRACING AND INSULATION WILL BE INSTALLED ON ALL CHLORINE PRESSURE IMPULSE LINES, NOZZLES, AND TRANSMITTERS. (IP) (IN PROGRESS)

SL 088532

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
02/07/89 Tue	NaOH L 3780 lbs.	DEQ/NRC NaOH 3780 lbs.	SH/ SHIPPING A	EXPANSION JOINT BLEW OUT AT FLANGE BETWEEN TANK HG-1 SUCTION AND MC-50 TRUCK LOADING PUMP.	REPAIRS TO HG PUMP PAD AND PIPING SYSTEM ARE IN PROGRESS. WHEN COMPLETED, THERE WILL BE NO EXPANSION JOINT IN THE SYSTEM. (OP) (DONE)
02/10/89 Fri	HCl G 11.4 lbs.	INTERNAL	B/ WTU	#2 PER/TRI STEAM STRIPPER RUPTURE DISC FAILED PREMATURELY. OPERATOR INPUT WRONG SET-POINT ON STEAM TCV CAUSING SURGE OF STEAM TO HIT STRIPPER.	COMPUTER WILL BE PROGRAMMED TO PREVENT A SET-POINT OF GREATER THAN 245 BEING ENTERED FOR THE TCV ON BOTH STRIPPERS. PREMATURE RUPTURE DISC FAILURES ARE ALSO BEING INVESTIGATED. (PE) -DONE-
02/10/89 Fri	HCl L 47.6 lbs.	INTERNAL	B/ WTU	#2 PER/TRI STEAM STRIPPER RUPTURE DISC FAILED PREMATURELY AGAIN.	PREMATURE RUPTURE DISC FAILURES ARE BEING INVESTIGATED WITH THE SUPPLIER. (MP) -DONE-
02/10/89 Fri	ETHYL CHLORIDE G 5.8 lbs.	DEQ ETHYL CHLORIDE 5.8 lbs.	B/ EC/HCL	INTERNAL CORROSION TO THE SRV NOZZLE ON THE EC REWORK DRYER CAUSED A PINHOLE LEAK OF ETHYL CHLORIDE.	SRV NOZZLE WAS REPLACED. OTHER NOZZLES ON THE DRYER WILL BE INSPECTED AND CHECKED FOR METAL THICKNESS. (IC) (DONE)
02/11/89 Sat	CHLORINE G 5.8 lbs.	INTERNAL	CA/ LIQUIFICATION	A LINE ON EXPANSION BOTTLE AT TANK 20 DEVELOPED A LEAK IN THE THREADED CONNECTION.	CONNECTIONS ARE BEING CHANGED TO ALL WELDED CONNECTIONS EXCEPT FOR CONNECTION TO A BLOCK VLV. THIS IS BEING DONE THRU ATTRITION(EC). 28 OF 60 SETS OF BOTTLES/ PIPING HAVE BEEN UPGRADED(AS OF 1/3/90)
02/16/89 Thu	NaOH L 225 lbs.	INTERNAL	SH/ DOCKS	WHILE DRAINING CAUSTIC TRANSFER LINE AT "C" DOCK, SUMP FILLED FASTER THAN SUMP PUMP COULD HANDLE. HIGH LEVEL ALARM DID NOT SOUND.	NONE PROVIDED. (IP)
02/17/89 Fri	ClHC L 1075 lbs.	INTERNAL	B/ WTU	OPEN VALVES ALLOWED CONTINUOUS FEED INTO DH STILL UNTIL IT WAS COMPLETELY FULL BLOWING RUPTURE DISC. SPILL WAS CONTAINED ON THE PAD.	REROUTE SAMPLE PURGE LINE INTO DH PRODUCT TK(CAN NOT BE DONE). INSTRUCT OPERATORS TO PURGE FOR 5 MINUTES PRIOR TO SAMPLING AND KEEP VALVE CLOSED AT ALL OTHER TIMES. (PE) -DONE-

ST 088533

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT	AREA	DESCRIPTION	CORRECTIVE MEASURES
02/26/89 Sun	HCl G 75 lbs.	INTERNAL	B/	WTU	SPLIT FLANGE HOLDING A BLIND FLANGE ON THE OLD OHC VENT HEADER WAS SEVERELY CORRODED AND STARTED LEAKING.	VENT HEADER HAS BEEN INSPECTED AND PARTS REPLACED W/ DEREKANE AND/OR FURAN.(DONE) EVALUATION AS TO POTENTIAL TROUBLE AREAS WILL BE DONE. (EC)(REPLACING OLD HEADER PIPING-SHOULD BE COMPLETE 7/15).
03/10/89 Fri	ClHC G 16.5 lbs.	DEQ ETHYL CHLORIDE 7 lbs.	B/	WTU	RUPTURE DISC ON WTU VENT COMPRESSOR KNOCK OUT POT BLEW. NO APPARENT REASON FOR DISC TO BLOW. PERHAPS PREMATURE FAILURE.	RUPTURE DISC INSTALLATION WILL BE REVIEWED. (QP)
03/14/89 Tue	PERCHLOR L 8632 lbs.	DEQ/WRC PERCHLOR 8632 lbs.	B/	PER/TRI	AS A RESULT OF POOR COMMUNICATIONS, THE PER STABILIZER POT OVERFILLED ALLOWING PERCHLOR TO SPILL TO THE GROUND.	INVEST. INSTALLING SPRING-LOADED VALVES. REROUTE STABILIZER SUMP OVERFLOW DRAIN. COUNSEL OPERATOR.(DONE) WRITE SOP TO STATE AN AUX. OPR MUST STAY IN BLDG WHILE STABILIZING.(PE) (DONE)
03/14/89 Tue	VDCM G 2034 lbs.	INTERNAL	SH/	SHIPPING B	A T/C WAS CONNECTED FOR LOADING BY CONNECTING LIQUID LINE TO VENT VALVE OF CAR AND INCIN. VENT HOSE TO LIQUID VALVE OF CAR. VENT SYSTEM RUPTURE DISC BLEW WHEN LOADING BEGAN.	INST LIQ SENSOR AND CONTROL VLV IN VDCM INCIN. VENT LINE AT T/C LOADING STATIONS TIE TOGETHER SENSORS, CONTROL VLVs, AND PUMP SWITCHES TO STOP FLOW IF LIQUID IS SENSED.(PE)(IN ENGR).-INST END OF 8/89.
03/17/89 Fri	CHLORINE G 6 lbs.	INTERNAL	CA/	Hg CELL	NEW LEAD OPERATOR CONFUSED SEQUENCE OF STARTUP ACTIONS. LOAD WAS RAISED BEFORE PRODUCTION WAS IN LIQUIFACTION SYSTEM. RESULTING SYSTEM BACKPRESSURE CAUSED A RELEASE FROM THE CELL ROOM.	INCIDENT WAS REVIEWED WITH OPERATOR. HE IS TO WRITE A PROCEDURE FOR SOP. SOP TO BE FINALIZED BY 4-14-89. (PE)
03/18/89 Sat	HCl G 12.9 lbs.	INTERNAL	B/	WTU	OPERATOR SWITCHED STEAM FCV ON #1 P/T STEAM STRIPPER TO AUTO AND VALVE WENT 100% OPEN. OPERATOR PUT FCV ON MANUAL AGAIN, BUT VALVE REMAINED OPEN, RESULTING IN RUPTURE DISC TO BLOW.	SOFTWARE UPGRADE INSTALLATION IS COMPLETED. ALL TUNING PARAMETER DEFAULT VALUES WERE CHANGED TO THEIR SETTINGS DURING PROPER OPERATION. (IP)

SL 088534

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
03/21/89 Tue	CHLORINE G 9 lbs.	INTERNAL	CA/ A ELECTROL.	LOSS OF 400# STEAM TO LIQUIFACTION CAUSED LACK OF COMPRESSION. RESULTING CHLORINE BACKPRESSURE ON CIRCUITS CAUSED RELEASE OF CHLORINE FROM VACUUM SEAL OVERFLOW SIPHON BREAKS. ;	WORKORDER HAS BEEN WRITTEN TO LENGTHEN OVERFLOW SEAL LOOPS FROM THE VACUUM SEALS ON EACH CIRCUIT. (MP) (DONE)
03/22/89 Wed	VDCM G 836 lbs.	INTERNAL	B/ EDC	VDC REACTOR RUPTURE DISC BLEW SINCE TOO MUCH STEAM WAS ON REACTOR WHEN REFLUX WAS INTRODUCED. EXISTING PRESSURE ALARM HAD BEEN PULLED AND NOT REPLACED.	OPERATORS WERE COUNSELED. NOW TO PROVIDE PRESSURE INDICATION AND ALARM ON VDC RX RATHER THAN ON THE VENT VALVE. TEMPORARY ALARMS WERE INSTALLED UNTIL A PERMANENT SYSTEM CAN BE INSTALLED.(PE)
03/23/89 Thu	METHYLCHLOROFORM L 218 lbs.	INTERNAL	B/ TE-II	A 1/2 INCH VALVE WAS LEFT OPEN ON A TANK. WHILE UNLOADING AN MC T/T TO THE TANK, LIQUID SPILLED FROM THE VALVE ONTO CONTAINMENT AND THE GROUND.	OPERATORS WILL BE TALKED TO BY J. ROCK RE-INSPECTION OF BLEEDS AND VENTS PRIOR TO TRANSFERRING MATERIAL. ALL BLEEDS AND VENTS IN OLD TANK FARM TO BE INSPECTED FOR PLUGS. (PE) (DONE BY 3/30/89)
03/25/89 Sat	HCL G 12 lbs.	INTERNAL	B/ TE-II	TE-II VENT HEADER DEVELOPED A LEAK AT A JOINT. APPARENTLY THE PIPE SUPPORT SLIPPED OFF THE RACK AND THE WEIGHT OF THE PIPE SPLIT THE JOINT.	TEMPORARY REPAIR IS BEING OVERLAYED WITH DERAKANE. (DONE 3/26/89). PIPERACK INSPECTION WILL INCLUDE VENT HEADER, SPECIFICALLY STATUS OF SUPPORT SHOES. (MP) (COMPLETED INSP. 5/89).
03/30/89 Thu	CIHC G 1.4 lbs.	DEQ/EPA	B/ PER/TRI	PINHOLE LEAK NEAR THE WELD IN THE INLET THROAT OF THE #3 PER/TRI REACTOR CYCLONE. SUSPECT INTERNAL EROSION. ORIGINALLY THOUGHT TO BE REPORTABLE.	CYCLONE WILL BE SWAPPED AND INSPECTED. IMPLEMENT DESIGN AND PROCEDURE CHANGES AS OUTLINED IN MEMO OF 4/10/89. (DP) (DONE- OTHER CYCLONES BEING MODIFIED AS SWAPPED OUT).
03/31/89	CIHC L 1067 lbs.	DEQ/NRC VC/EC/PER 6.2/1.2/2.7 lbs	B/ WTU	LIQUIDS CONDENSED INTO VC-II VENT HEADER AS THE VENT HEADER KNOCK OUT POT FILLED ITS 10# RUPTURE DISC BLEW, APPARENTLY PREMATURELY. ADJACENT PRESSURE TRANS. SET AT 3.5#, DID NOT ALARM.	RUPTURE DISC WAS REPLACED WITH ONE RATED AT 25#. KNOCK OUT POT WILL BE CHECKED EVERY 4 HOURS ON ROUNDS AND WILL BE DRAINED OF LIQUIDS AS NECESSARY. (OP) (APPEARED TO BE INSTALLATION PROBLEM)

SL 088535

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT	AREA	DESCRIPTION	CORRECTIVE MEASURES
04/04/89 Tue	CLHC/Water G 41.7 lbs/3700 lbs	NRC/DEQ VC 14.9 lbs	B/WTU		Rupture disc blew on CSS Feed Tanks due to rising temperature and level during a rate change on the VDCM Reactor. .	1. INSTALL A COOLER ON VDCM RX BTMS BY 4/30/89. (DONE) 2. Divert VDCM Rx btms stream out of CSS SYSTEM(ENGR. WOW).
04/13/89 Thu	CLHC/Water L <1 lb/180 lbs	NRC/DEQ ICR substance 180 lbs	B/WTU		LINING OF VALVE FAILED AND PROCESS WASTE water leaked onto the ground(ph = 0.5). .	Valve was replaced.
04/19/89 Wed	HCL/Water L 1071 lbs/2498 lbs	INTERNAL	B/WTU		While removing a piece of piping from the piperack, this piping struck an acid line breaking a nipple causing the spill .	Review the incident in the next maint. GANGBOX SAFETY MEETING(4/26/89).-DONE-
04/27/89 Thu	CLHC L 2244 lbs	INTERNAL	B/Per/Tri		The hose connected to the scrubber came loose while filling the vaporizer; faulty level indications on the vaporizer did not allow the level to be known.	1. REV RX VAPORIZER S/UP PROC.(DONE) 2. RPL. BAD VALVE ON VENT LINE.(DONE) 3. REPLACE BAD HOSE FITTING. (DONE) 4. HAVE INSTR. DEPT. CHECK ALL AIR SUPP. ARE REOPENED WHEN COMPL W/ JOB.(DONE)
04/28/89 Fri	VC G 47.5 lbs	LASP/DEQ/NRC/LEPC VC 47.5 lbs	B/VCM II		#1 SRV ON VC PRODUCT STILL REFLUX DRUM LIFTED DURING START-UP. . .	1. MOD S/UP SOP(COMPLETE BY 6/15)(DONE) 2. Form QAT to finalize Start-up SOP for GOING ON RECYCLE(COMPLETE BY OCT.) 3. CALL AN ORC MEETING TO DISCUSS
04/28/89 Fri	EDC L 891 lbs	INTERNAL	B/VCM II		#2 SRV on Primary Lean Oil Cooler lifted during unit start-up. .	1.MOD S/UP SOP(COMPLETE BY 6/15).(DONE) 2.Form QAT to finalize start-up SOP for going on recycle(Complete by Oct.).
05/02/89 Tue	EDC L 36 lbs.		B/VCM II		#2 DOPP KETTLE AT VCM II WAS OVERFILLED WITH SEAL FLUSH DUE TO IMPROPER ISOLATION(KETTLE WAS OUT OF SERVICE). THE KETTLE OVERPRESSURIZED AND EDC WAS RELEASED THROUGH THE SRV STACK.	1. MODIFY SOP TO LIST EVERY ISOLATION VALVE. (DONE) 2. REPAIR HIGH PRESSURE SWITCH. (DONE) 3. TAG OPEN SRV DISC STACK BLD VLV.(DONE) 4. COUNSEL THE OPERATOR INVOLVED.(DONE)

SL 088536

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT	AREA	DESCRIPTION	CORRECTIVE MEASURES
05/02/89 Tue	D002 L 6535 lbs.	NRC, DEQ D002 6535 lbs.	B/WTU		A FLANGE LEAK DEVELOPED ON THE B1 LIFT STATION HEADER. WHEN AN ATTEMPT WAS MADE TO TIGHTEN THE BOLTS, ONE OF THE BOLTS BROKE, CAUSING THE LEAK.	1. THE BOLTS ON THIS HEADER WERE REPLACED W/ TEFLON COATED BOLTS(DONE) 2. THIS WILL BE A SPECIFIC ITEM ON THE PIPELINE INSPECTIONS.(BEING DONE)
05/03/89 Wed	EC G 92.5 lbs.	DEQ EC 92.5 lbs.	B/EC		A LEAK OF EC OCCURRED DUE TO EXTERNAL CORROSION ON A 2" LOADING LINE.	1. THE LEAKING SECTION OF LINE WAS REPLACED. 2. THE REMAINDER OF THE LINE WILL BE
05/07/89 Sun	organics/water L 103 lbs/334 lbs.		B/VCM II		A LEAK DEVELOPED ON A FRAC TANK TEMPORARILY LOCATED AT WTU DURING THE VCM II OUTAGE. THE MATERIAL SPILLED INTO THE 010 SEWER.	1. THE FRAC TANK WILL BE CLEANED 5/11 AND REMOVED. (DONE)
05/08/89 Mon	HCl L 171 lbs.		B/WTU		A FLANGE LEAK DEVELOPED ON THE STRONG ACID HEADER AT THE NW CORNER OF THE BTMS PLANT.	1. IMPLEMENT CLOSER INSPECTION OF PIPELINES. 2. CHANGE FREQUENCY OF INSPECTIONS IF REQUIRED.
05/10/89 Wed	CL2 G 3 lbs.		A/Liquefaction		DURING LEAK TESTING OF A NEWLY INSTALLED PUMP, CL2 ESCAPED FROM A TAPPED HOLE USED TO HYDROTEST THE PUMP. PPG PERSONNEL WERE UNAWARE OF THIS TAPPED HOLE.	1. MORE THOROUGH INSPECTION OF NEW EQUIPMENT UPON ARRIVAL. (BEING DONE) 2. VENDOR WAS CONTACTED TO DISCONTINUE INSTALLING THIS TAP. (DONE) 3. REV PRESSURE CHECKNG PROCEDURE.(DONE)
05/12/89 Fri	VDC G 409 lbs.		B/VDC		DURING STARTUP OF THE VDC RX, A SUDDEN PRESSURE INCREASE CAUSED THE R/D TO BLOW HIGH PRESSURE ALARMS SOUNDED BUT WERE AT THE SAME TIME AS THE R/D BLEW. POSS-IBLE PLUGGING OF TRAYS IS SUSPECTED.	1. REACTOR WAS SHUTDOWN;ALL INSTRUMENTA-TION WAS CHECKED AND WORKING. 2. AN INTERNAL INSPECTION OF THE RX WILL BE MADE AND REPAIRED AS NECESSARY. 3. REV. SOP FOR EXTENDED RX OUTAGES.

SL 088537

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
05/12/89 Fri	CL2 G 86 lbs.	NRC, DEQ CL2 86 lbs.	A/Hg Cell	AN UPSET OCCURRED IN CELL FD PH WHEN AN ACID BYPASS VLV WAS LEFT OPEN. HIGH TEMP RESULTED CAUSING THE CL2 COMPRESSOR AT LIQUEF. TO BE TRIPPED. THIS CAUSED THE NEUTRALIZER TO BE OVERLOADED.	1. AN ORC MTG. WAS HELD TO DISCUSS PROPOSED CHANGES. (DONE) 2. RPL. ACID BYPASS VLV W/ SMALLR (DONE) 3. INST ADDITIONAL INSTRUMENTATION. 4. COMPLETE STUDY ON CAPACITY OF NEUTR.
05/15/89 Mon	NaOH L 191 lbs.		C/Caustic	A CRACK IN A WELD DEVELOPED ON THE DRAIN LINE OF THE 50% TRANSFER HEADER.(THE CRACK MAY HAVE BEEN CAUSED BY HIGH VIBRATION DUE TO PROBLEMS WITH THE EAST TRANSFER PUMP.	1. REPAIR THE EAST TRANSFER PUMP.(DONE)
05/17/89 Wed	CL2 G <8 lbs.		A/LIQUEFACTION	THE CL2 SNIFF BOOSTER PUMP LOST ITS PUMPING CAPACITY.THE AUTOMATIC DISCHARGE VALVE FAILED TO CLOSE WHEN THE MOTOR CONTINUED RUNNING.CL2 FLOWED BACKWARD AND LEAKED OUT THE PACKING GLANDS.	1. INST BALL CHECK DOWNSTREAM OF BOOSTER SEPARATOR TO LIMIT RELEASE.-DONE-7/13 2. REVISE PROCEDURE FOR DETERMINING TO REPLACE SNIFF PUMPS. (DONE)
05/17/89 Wed	NaOCl L 394 lbs.	NRC/DEQ NaOCl 394 lbs.	B/WTU	A GASKET BLEW OUT ON THE TRANSFER LINE FROM HG CELL UNIT TO SODIUM FORMATE. .	1. REVIEW PIPELINE INSP PROGRAM.(THIS LINE WAS MISSED ON EARLIER INSPECTN) 2. CHECK THAT GASKET TYPE IS PROPER FOR
05/21/89 Sun	F024 L 171 lbs.	NRC/DEQ F024 171 lbs.	B/WTU	INCINERATOR FEED LINE DEVELOPED A HOLE CAUSING A SPILL TO THE GROUND. .	1. INSTALL INCINERATOR FEED LINES IN TRENCHES IN 1990. 2. INSTALLED REINFORCEMENT PADS TO
05/26/89 Fri	HCl L 55 lbs.		B/EC	A CRACK DEVELOPED IN A FURAN WEAK ACID LINE AFTER THE PIPERACK WAS ACCIDENTALLY HIT BY HEAVY EQUIPMENT. .	1. REPLACE THE FURAN SECTION OF THIS LINE WITH LINED PIPE. (LINE REPAIRED 5/26; WOW TO RPL LINE WITH DERAKANE PIPE. -DONE-

SL 088538

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
06/05/89 Mon	HCl/CLHC G 189 LBS./20 LBS.	DEQ HCl 189 LBS.	PER/TRI	THE RUPTURE DISC ON THE NORTH DH FEED TANK AT PER/TRI FAILED PREMATURELY. TANK HAD BEEN OUT OF SERVICE AND WAS BEING READIED FOR SERVICE.	1. THE 3 DH FEED TANKS AT PER/TRI WILL BE PRESSURIZED(10#) PRIOR TO USE AFTER MAINTENANCE WORK. 2. CHECK GASKETS FOR PROPER ONES USED. 3. CHECK BOLT TORQUEING AND REEMPHASIZE.
06/06/89 Tue	NaOH L 125 LBS.		CA/PELS SHIPPING	WASH PAN DRAIN DEVELOPED A PLUG IN LINE CAUSING MATERIAL TO BACK UP AND ESCAPE THE WASH PAN, CAUSING A VIOLATION.	1. HYDROBLASTED SEWER LINE CLEAR. 2. COMMUNICATION MTG. TO BE HELD WITH PELS PACKERS TO RE-EMPHASIZE IMPORTANCE OF PROMPT REPORTING OF SPILLS.
06/14/89 Wed	EC G 92 LBS.	DEQ EC 92 LBS.	B/EC	A LEAK DEVELOPED IN A BLEED PLUG ON A FLOW TRANSMITTER DUE TO EXTERNAL CORROSION.	1. INSTRUMENT MECHANIC TO CHECK ALL TRANSMITTERS IN EC PLANT FOR SIMILAR PROBLEM AND CORRECT AS NECESSARY BY 7/14/89.
06/16/89 Fri	NaOH L 820 LBS.		CA/ PH CONTROL	CELL LIQUOR WAS SPILLED TO THE GROUND WHEN THE CELL LIQUOR LINE FROM TANK #6 WAS BEING CLEARED FOR MAINTENANCE. THE LINE WAS IMPROPERLY ISOLATED AND TAGGED.	1. UPDATE AND DISTRIBUTE A FLOW DIAGRAM OF THE CELL LIQUOR COLLECTION AND DISTRIBUTION SYSTEM.
06/24/89 Sat	HCl L 62 LBS.		B/WTU	A HOLE DEVELOPED IN THE WEAK ACID TANK ALLOWING ACID TO LEAK ONTO THE GROUND AND INTO THE SEWER (INTERNAL CORROSION).	1. INSPECTION DEPT. WILL INSPECT TANK ON 6/27. PENDING RESULTS OF THIS INSPECTION, ROUTINE INTERNAL INSPECTION OF THIS TANK WILL CONTINUE.
06/26/89 Mon	CL2 G 5 LBS.		CA/HG CELL	DURING AN EMERGENCY OUTAGE, CL2 WAS SENT TO THE NEUTRALIZER. THE ORP PROBE MALFUNCTIONED ALLOWING CL2 TO BE VENTED TO THE ATMOSPHERE. THE PROBE FAILURE WAS DUE TO DIRTY PROBE AND LOW SAMPLE FLOW.	1. A POLICY HAS BEEN ADOPTED TO CHECK THE ORP PROBE WEEKLY TO INSURE A CLEAN PROBE AND ADEQUATE SAMPLE FLOW.

SL 088539

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
06/27/89 Tue	CL2 G 1.5 LBS.		CA/ HG CELL	THE DEPLETED BRINE TANKS OVERFLOWED CHLORINATED BRINE AS A RESULT OF A PUMP BEING SHUT DOWN FOR A GROUND SEARCH AND NOT RESTARTING.	1. WOW TO INST LOWER HIGH LEVEL ALARM ON DEPLETED BRINE TANKS. 2. DEVELOP SOP FOR DETECTING ELECTRICAL GROUNDS. SOP WILL HIGHLIGHT EQUIPMENT TO HAVE SPARE RUNNING PRIOR TO S/D.
06/28/89 Wed	OIL L 12 GALL		COMPLEX	A FUEL TRUCK WAS BEING BACKED UP TO REFUEL A PORTABLE GENERATOR WHEN IT PUNCTURED A 55 GALLON DRUM OF TRANSFORMER OIL.	1. SHIFT REPAIRMEN WERE COUNSELED.
06/29/89 Thu	CL2 G 9 LBS.		CA/'C' CL2	DURING STARTUP OF A CIRCUIT, CL2 WAS DIVERTED TO THE NEUTRALIZER PER SOP. AT THAT TIME A SMALL AMOUNT OF CL2 BROKE THROUGH DUE TO A CAUSTIC NOZZLE FALLING OFF THE FEED DISTRIBUTION HEADER.	1. INVESTIGATE METHOD TO PREVENT THE CAUSTIC NOZZLES FROM FALLING OFF AND INSTALL DURING NEXT INTERNAL INSPECTION SCHEDULED FOR 10/89.
07/02/89 Sun	PER/HVS L 43346LBS./2282/LBS		B/ PER/TRI	THE SIGHTGLASS ON #4 AUX TANK FAILED AND CONTENTS OF TANK DRAINED TO A CONCRETE SUMP AREA. INSPECTION OF THE SIGHTGLASS SHOWED IT TO BE PLASTIC AND CAUSE OF THE FAILURE WAS CHEMICAL ATTACK.	1. INSPECTED ALL SIGHTGLASSES- NONE FOUND TO BE PLASTIC. 2. NEW POLICY INSTITUTED FOR BLOCKING IN BOTTOMS SIGHTGLASSES.
07/03/89 Mon	HCL G 17 LBS.		B/ WTU	THE RUPTURE DISC ON #3 WASTE STORAGE TANK BLEW PREMATURELY(<5 LBS.).	1. CONT. EMPHASIS W/ MAINT. ON PROPER INSTALLATION OF GRAPHITE DISCS(SPIER) 2. RPL SOLENOID ON VENT VALVE(DONE) 3. CHECK ALL PI'S ON WST FOR PROPER OPR. 4. INST DRAINS ON R/D STACKS(DONE)
07/03/89 Mon	CLHC SLUDGE 400 LBS.		CX/S.I.DRUM STG.	SEVERAL DRUMS OF NORTH CLASSIFIER SLUDGE FELL OVER WHEN THE BOTTOMS DRUMS THEY WERE STACKED ON COLLAPSED. THE LID OPENED ON ONE OF THE DRUMS THAT FELL OVER ALLOWING THE CONTENTS TO SPILL.	WILL HAVE TRICEL GO THROUGH DRUMS TO SEPARATE PARTIALLY FILLED DRUMS.PARTIAL FILLED DRUMS WILL BE STACKED ON TOP. ONLY COMPLETELY FULL DRUMS TO BE PLACED ON FLOOR-COMPLETE- 7-14-89

SL 088540

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
07/05/89 Wed	CLHC-CONT. DIRT 60 LBS.		CX/S.T. DRUM STG	TWO DRUMS OF CLHC-CONTAMINATED DIRT FELL OVER WHEN THE DRUMS THEY WERE STACKED ON COLLAPSED. ONE DRUM LID OPENED SPILLING CONTAMINATED DIRT ONTO THE PAD.	SAME AS FOR SPILL ON 7/3/89
07/24/89 Mon	NAOH L 2560 LBS.		C/A /'A' CAUSTIC	A GASKET FAILED ON THE PLANT 'C' TRANSFER HEADER WHILE TRANSFERRING CAUSTIC TO THE TANK FARM. APPROXIMATELY 80% OF THE SPILL WAS INTO A CONTAINMENT AREA.	NONE
07/29/89 Sat	PER L >0.5 LBS.		B/ PER-TRI	PERCHLOR SPILLED TO THE PAD WHEN THE RECYCLE HEADER ON THE PER/TRI STILL LINE BEGAN LEAKING DUE TO CORROSION.	1. LINE WAS CLAMPED TO STOP LEAK. THIS LINE HAD ALREADY BEEN IDENTIFIED FOR REPLACEMENT(DOME). 2. PER/TRI ENV. QAT TO DEVELOP AN ACTION PLAN.
08/01/89 Tue	SODIUM HYPOCHLORIT 817 LBS.	NRC, DEQ SODIUM HYPOCHLO 817 LBS.	B/VCMTI	DISCHARGE TUBING LEADING FROM C/T BLEACH STORAGE TANK FD PUMP TO THE C/T CRACKED RELEASING BLEACH TO THE GROUND. CAUSE OF CRACK IN TUBING APPEARS TO BE EMBRITTLEMENT.	1. THE INLET AND DISCHARGE TUBING ON THE COOLING TOWER BLEACH FEED PUMP WILL BE REPLACED WITH TEFLON TUBING BY 8/7/89.
08/03/89 Thu	CL2 G 2 LBS.		C/A / HG CELL	THE RECIRCULATION VALVE ON HG CENTR. COMPRESSOR WENT TO MAX REC., INSTRUMENT WOULD NOT CONTROL. BACK PRESSURE DEVELOPED ON THE SYSTEM CAUSING CL2 GAS TO ESCAPE INTO THE CELL ROOM.	1. RPLCD THE MOD 30 CONTROLLER AT S LIQ. 2. CLEANED DEBRIS IN AIR TUBING/ACTUATOR WHICH PREVENTED SUCT VLV ON EAST NEUT FROM OPERATING PROPERLY. 3. WKLY SWITCHING OF EXH WILL CONTINUE.
08/20/89 Sun	HG L 2 LBS.	NRC, DEQ HG 2 LBS.	CA / HG CELL	CELL #3 DEVELOPED A FLANGE LEAK ON HG INLET LINE. DESPITE HAVING A FLANGE GUARD, HG WAS BLOWN OUT PAST CONCRETE PAD BARRIER AND ONTO THE SHELLD AREA SOUTH OF THE CELL BUILDING.	1. A NEW TYPE OF FLANGE GUARD HAS BEEN INSTALLED. 2. EXTENSION OF CURBED CONTAINMENT IS ONE PHASE OF IMPROVEMENTS TO CELL RM AND RCRA SITE.(COMPLETE BY 6/90).

SL 088541

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT	AREA	DESCRIPTION	CORRECTIVE MEASURES
08/31/89 Thu	EDC L 105 LBS.		B /	EDC	STARTED THE REFLX PUMP TO #1 STRIPPER, MATERIAL WENT FORWARD TO THE STRIPPER & ALSO FLOWED BACKWARD THRU A CHECK VALVE & OUT A PARTIALLY OPEN BLD VLV AT #4 REC PMP. MATL SPRAYED FROM #1 PLT TO GROUND.	1. RPL BAD CHECK VLV DURING NEXT OUTAGE. (BY 11/30/89) 2. SURVEY BLEED VALVES IN AREA.(10/30) 3. PLUG ALL BLD VLVS NOT OVER CONTAINMNT 4. BLD VLVS OVER CONT. WILL POINT DOWN.
09/11/89 Mon	NaOH L 250 LBS.		C/A /	C CAUSTIC	DURING BOILOUT, THE BOILOUT TK O/FLOWED INTO A PROCESS SEWER BOX. WATER SPLASHED OUT OF BOX ONTO GROUND. TANK HI LVL ALRM DID NOT WORK/ OPS ATTENTION WAS DIVERTED DUE TO STEAM SYSTEM PRESSURE PROBLEMS.	1. RPR B/O TNK HI LVL ALRM BY 9/15.DONE 2. ADD B/O WATER AND STG TNK TO SIX MMTH CRITICAL ALARM PROOFTEST LIST.DONE 3. CONSIDER EXTRA OP. COVERAGE FOR MAJOR BOILOUTS.DONE PER T. SMITH 10/19.
09/15/89 Fri	CLHC/HCL G 67 LBS./ 71 LBS.	DEQ/NRC PERCHLOR/MC8D 39.2LBS/1.1LBS	B/	PER/TRI	DURING START-UP OF #1 PER/TRI RX, BOTH RUPTURE DISCS ON THE RX BLEW DUE TO A FAULTY PRESSURE TRANSMITTER.	1. AN ORC MEETING WILL BE HELD TO DISCUSS THIS INCIDENT.(DONE) 2. A REVISED START-UP PROCEDURE HAS BEEN WRITTEN AND IS IN EFFECT.
09/18/89 Mon	HCL L 167 LBS.		B/	VCMI1	A LEAK DEVELOPED ON THE #4 INC. PRIMARY SCRUBBER EFFLUENT TO WTU. AQUEOUS MATL FLOWED ONTO THE GROUND UNTIL BLOCK VLVS WERE CLOSED AT VCM11 AND LINE WAS ABLE TO BLEED DOWN TO ENABLE REPAIRS.	1. AN IMMEDIATE VISUAL INSPECTION OF THE LINE WILL BE MADE TO ENSURE ITS SOUNDNESS. 2. LOSS PREVENTION INSPECTORS WILL EXAMINE THE LINE FOR POTENTIAL PROBLEMS.
10/02/89 Mon	N2/VC G 0.95LBS/0.02LBS.		B/	EDC- EC/HCL	VENTS TRIPPED OUT OF #1 INC. SAT. 9/30. VENTS WERE ROUTED TO #2 INC. VCI VENT HEADER ISOLATION VALVE WAS NOT OPENED. SHIPPING CLEARED HOSES INTO THE VENT HDR AFTER THIS TIME. R/D FOUND LEAKING 10/2.	1. INST LOW PRESSURE ALRM FOR HDR. 2. CHECK PRESSURE RECORDER. 3. PROOFTEST HIGH PRESSURE TRIPS. 4. COUNSEL L.O. AND INC. OPERATORS.
10/03/89 Tue	CL2 G 3 LBS.		SHIPPING	A	A SURGE OF CL2 GAS OF UNKNOWN ORIGIN ACCUMULATED IN SNIFF LINES AND BACKED OUT THROUGH A LOOSE FITTING INTO TANK CAR LOADING LINES.	1. COUNSELED LOADER TO TIGHTEN ALL FITTINGS MORE THAN JUST HAND TIGHT. 2. ALL LOADERS AND HELPERS WERE INFORMED OF THIS INCIDENT AT COMMUNICATIONS MEETINGS.

SL 088542

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
10/03/89 Tue	HCL G <100 LBS.		B/ PER/TRI	THE EXPANSION JOINT ON #4 RX PULLED OUT OF STEEL FLANGE WHILE MAINTENANCE WAS ATTEMPTING TO REPAIR A MINOR LEAK. .	1. THIS EXP. JOINT WILL BE EXAMINED ON EACH RX TO VERIFY THAT EACH HAS STAY BOLTS OR IS RPL WITH ONE THAT DOES. 2. REVIEW WITH MAINT PERSONNEL 3. RPR THE HCL FLOW CONTROL VALVE.
10/03/89 Tue	CLHC G 180 LBS.	DEQ/NRC PER/TCE/UN/SYM 4/24.5/11.2/4	B/ WTU	THE LEVEL INDICATOR FLOAT CHAMBER FLOAT FAILED CAUSING THE LCV TO NOT SEE A LVL IN THE DH STILL. THE STILL WAS OVERFED, RESULTING IN A RELEASE THROUGH THE RUPTURE DISC.	1. RPL AND MORE THOROUGHLY CHECK ALARM SYSTEM LIGHTING. 2. RPR LEVEL FLOAT AND FLOAT CHAMBER 3. INV. USING DP SYSTEM AS A REDUNDANT LEVEL ALARM-MAY TIE IN TO SDS.
10/04/89 Wed	PER L 2.3 LBS.		B/ PER/TRI	SMALL PINHOLE LEAK DEVELOPED ON THE BOTTOM SIGHTGLASS NOZZLE ON THE CLEAN UP STILL REFLUX DRUM. PERCHLOR SPRAYED ONTO THE CONTAINMENT PAD. .	1. VESSEL WAS CLEARED FOR ENTRY/INSPTN. 2. RPL LEAKING NOZZLE AND MAKE ANY OTHER REPAIRS AS RECOMMENDED BY LOSS PREV. 3. TAKE THICKNESS READINGS ON NOZZLE IN EFFORT TO DETERMINE CAUSE OF FAILURE.
10/04/89 Wed	PER L 40 TONS		SHIPPING/ DOCKS	CSCC BARGE 202 WAS LOADED WITH PERCHLOR. LEAD LOADER FOUND A LEAK FROM A CARGO TANK INTO DRY COMPARTMENT OF BARGE.	1. BARGE WAS SENT TO SHIPYARD FOR INSPECTION.
10/08/89 Sun	NAOH L 433 LBS.		A/ A GENERAL	A LEAK DEVELOPED ON CELL LIQUOR LINE RUNNING THROUGH THE HG CELL AREA. APPROX 1/2 GPM FELL ON A CONCRETE PADDED AREA WHICH DRAINS TO THE BRINE SPILL SUMP WHICH IS TREATED PRIOR TO DISCHARGE.	1. THE BAD SECTION OF LINE WAS REPLACED. 2. LINE INSPECTIONS WILL CONTINUE. 3. GEM PAINTERS HAVE COMPLETED WORK ON THIS LINE AND NO OTHER PROBLEMS HAVE BEEN NOTED.
10/12/89 Thu	HCL G 44 LBS.		B/ TE 11	THE TRI-ETHANE FURNACE DEVELOPED A TUBE LEAK ALLOWING EDC TO ESCAPE INSIDE THE FURNACE. ONLY HCL ESCAPED TO THE ATMOSPHERE. .	1. TUBES ARE TO BE REPLACED IN DECEMBER '89. THE FABRICATION IS NOW IN PROGRESS.

SL 088543

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT	AREA	DESCRIPTION	CORRECTIVE MEASURES
10/19/89 Thu	EDC L 14 LBS.		B/	TE II	BLOCK VALVE ON #4 OHC REACTOR PRIMARY VENT MLS BYPASS DEVELOPED A LEAK AT THE STEM.	1. THE VALVE WILL BE REPLACED WITH A NON-DIAPHRAM TYPE TEFLON LINED VALE DURING THE NEXT OHC II REACTOR OVERHAUL.
10/28/89 Sat	CLHC L 78 LBS.	DEQ PER/TCE 12/2	B/	WTU	WHILE TRANSFERRING MATERIAL FROM A VACUUM TRUCK INTO THE TOP OF A RENTAL FRACK TANK LOCATED ON W. CLASSIFIER PAD, THE HOSE BEING USED BLEW OUT OF THE TANK SPRAYING MATERIAL ONTO THE GROUND.	1. INSPECT RENTAL TANKS TO ENSURE AN UNLOADING FITTING IS IN PLACE BEFORE USE 2. REVIEW INCIDENT W/ SERVICE PERSONNEL AND AT NEXT ENV. QAT MEETING. 3. SLUDGE MGMT TO INCL ELIM. OF TEMP. TKS
10/31/89 Tue	CLHC/HCL L 24 LBS.		B	VCM II	A WELD UPSTREAM OF THROTTLING VLV ON #2 VC DOPP KETTLE FEED LINE DEVELOPED A PIN HOLE LEAK SPRAYING APPROX. 2.5 GALLONS OF DOPP KETTLE FEED ONTO THE PAD AND GROUND.	1. RPL SECTION OF FEED LINE TO #2 VC DOPP KETTLE WITH SCHEDULE 80 PIPE RATHER THAN SCHEDULE 40 AS WAS THE ORIGINAL PIPE.
11/02/89 Thu	CLHC/HCL G 4.42 LBS	DEQ PERCHLOR 2.3	B/	PER/TRI	A LEAK DEVELOPED ON A PER/TRI REACTOR CATALYST CATCH POT RUPTURE DISC NOZZLE. OPERATORS BEGAN S/D OF RX BUT COULD NOT EST. FLUSH WATER FLOW TO COND. LK WAS CLAMPED UNTIL LINE COULD BE ISOLATED(EC)	1. REVISED PIPING-REVIEW OTHERS AS WELL. 2. RETURN STM TRACING TO SERVICE. 3. EST N2 PURGES ON #4 RX CATCH POT, AS OTHERS. 4. VISUAL INSP OF ALL POTS. 5. INCL CATCH POTS ON VIDS PROGRAM 6. REWORK FLUSH CV.
11/09/89 Thu	CLHC G 51377 LBS.		B/	TRI II	THE CLEARING LINE ON THE DCE RX CATALYST POT WAS LEFT OPEN WHEN THE SYSTEM WAS PUT BACK INTO SERVICE. THE RELIEF OPERATOR FOUND THE VLV OPEN AND BLOCKED IT. ALL MATERIAL WAS CONTAINED IN SUMP.(OP)	1. OPERATOR WAS COUNSELLED.
11/10/89 Fri	PER L 709 LBS.		B/	PER/TRI	A LEAK DEVELOPED ON THE DISCHARGE OF THE P/T HVS STILL REFLUX PUMP AT PER STILL FEED NOZZLE WELD. THE LEAK WAS CLAMPED ALL PERCHLOR WAS CONTAINED ON THE CONCRETE PAD. (IC)	1. LOSS PREVENTION TO TAKE UV READINGS OF PIPING SURROUNDING WELD -DONE- 2. NOW TO RPL PER FEED NOZZLE ON THIS LN 3. P/T ENV. QAT ADDRESSING THIS LOCATION AS A POTENTIAL PROBLEM AREA.

SL 088544

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
11/10/89 Fri	PER, TRI G 410 LBS.	DEQ PERCHLOR 62	B/ PER/TRI	THE PER/TRI STILL FEED LINE DEVELOPED A LEAK. DUE TO THE TEMPERATURE OF THE MATERIAL(210 F), VAPORIZATION TO THE AIR OCCURRED. (IC)	1. TEMPORARY CLAMP INSTALLED -DONE- 2. WOW TO REPLACE THIS SECTION OF PIPE. 3. MOISTURE RIG WAS CHECKED TO VERIFY THE MATERIAL WAS DRY -DONE- 4. P/T ENV QAT STUDYING INT CORR PROBLEM
11/14/89 Tue	CL2 G 45 LBS	NRC, LSP CL2 45	C/A / HG CELL	AS THE HG CELL UNIT WAS SHUT DOWN, THE LIQUOR IN THE NEUTR. HYPO TANK BECAME SATURATED W/ CL2 AND DID NOT HANDLE THE ENTIRE CL2 STREAM BEING SENT TO IT. PPG WAS NOTIFIED OF PROBLEM BY TETRA. (OP)	1. AN SOP WILL BE WRITTEN OUTLINING PROPER CAUSTIC ENRICHMENT OF THE HYPO RECIRCULATING SYSTEM PRIOR TO HIGH CL2 FLOWS TO THE NEUTRALIZER.
11/15/89 Wed	PER, TRI L 13 LBS		B/ PER/TRI	A LEAK DEVELOPED IN THE SIDE OF A BALL VALVE DOWNSTREAM OF THE #2 DH STILL LCV ON A DEAD-ENDED SECTION OF PIPING. ALL MATERIAL RELEASED WAS CONTAINED ON THE PAD. (IC)	1. THE BLOCK VALVE WAS REPLACED. 2. THIS AREA HAS BEEN IDENTIFIED BY THE P/T ENV QAT AS AN AREA OF POTENTIAL INTERNAL CORROSION PROBLEMS. THE QAT WILL MAKE RECOMMENDATIONS.
11/15/89 Wed	HCL G 35 LBS		B/ EDC - EC/HCL	A LEAK DEVELOPED ON THE OLD HCL HEADER DUE TO EXTERNAL CORROSION. (EC)	1. WOW TO REPLACE THIS SECTION OF PIPING 2. CONTINUE TO MAKE QUARTERLY PIPELINE INSPECTIONS.
11/16/89 Thu	PER L 26 LBS		B/ PER/TRI	A LEAK DEVELOPED IN WELD OF PER STILL FEED NOZZLE ON THE DISCHARGE OF THE HVS STILL REFLUX PUMP(SEE 11/10 SPILL). ALL MATERIAL WAS CONTAINED ON THE PAD. (IC)	1. P/T ENV QAT CURRENTLY ADDRESSING THIS LOCATION AS A POTENTIAL FOR INT CORR. 2. NOZZLE WAS REPLACED -REFLUX HEADER METAL LOOKED GOOD.
11/21/89 Tue	CLHC G 1.4 LBS		B/ WTU	OPERATOR DISCOVERED A BLOWN RUPTURE DISC ON #1 WTU PHASE SEPARATOR. INVESTIGATION REVEALED A HIGH ORGANIC LEVEL IN THE PHASE SEPARATOR. (OP)	1. START SLUDGE KETTLE SYSTEM TO REDUCE VOLUME OF SLUDGE AND CL2 CONCENTRATION BEING SENT TO WASTE TECH. 2. SLUDGE MGMT MUST INCLUDE A MEANS OF SLUDGE REMOVAL FROM CRITICAL SYSTEMS.

ST 088545

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
11/22/89 Wed	EC G 58 LBS	DEQ EC 47	B/ EDC - EC/HCL	A GASKET FAILED IN THE 2 INCH VENT CONDENSATE LINE. THIS FAILURE WAS BETWEEN THE PUMP DISCHARGE AND THE PRIMARY STRIPPER FEED TANK. (MP)	1. THE GASKET WILL BE REPLACED IMMEDIATELY. 2. A TEST SECTION OF PIPE IS TO BE PUT INTO SERVICE AND INSPECTED AFTER 30-45 DAYS OF EXPOSURE.
11/25/89 Sat	CLHC, HCL G 123 LBS.	NRC/DEQ VC/PER 1.5/3	B/ WTU	NO. 2 INC. TRIPPED AND PLANT VENTS (EXC. VCM II/CSS) EQUALIZED BACK INTO THE VCM II/CSS VENT HEADER. A FAULTY R/D IS SUSPECTED SINCE PRESSURE >3# WAS NEVER RECORDED(10# R/D). (MP)	1. CONT. TO ENSURE PROPER R/D & GASKET IS USED-NOT SUSPECTED AS PROBLEM HERE 2. CHECK THAT EACH R/D STACK HAS DRAIN HOLE AND IT IS UNPLUGGED. 3. REVIEW VT VLV SWITCHING PROC W/ OP.
11/29/89 Wed	OIL L	NRC OIL	B/ 'B' GENERAL	AN OIL SHEEN WAS SPOTTED PAST PPG BOOM IN THE CANAL. AN OIL LAYER WAS DISCOVERED ON THE WJT FEED TANK INVESTIGATION COULD NOT PINPOINT A SINGLE SOURCE NOR IDENTIFY THE OIL.(OP)	1. SCC TO ADDRESS AND DEVELOP ACTION PLAN EMERGENCY SPILL RESPONSE TASK FORCE 2. MEMO TO BE ISSUED TO DERIVATIVES OPN PERSONNEL ON IMPACT OF OIL IN SEWERS.
12/06/89 Wed	CLHC G 9 LBS.	DEQ VC 0.21	B/ WTU	NO. 1 CENTRAL STEAM STRIPPER FEED TANK WAS OVERFILLED CAUSING THE RUPTURE DISC TO BLOW. (OP)	1. OPERATOR INVOLVED WILL BE COUNSELED- POSSIBLE DISCIPLINARY ACTION 2. SOP TO BE WRITTEN TO ADDRESS HIGH ORGANICS IN SF FEED BY 12/31/89. 3. REVIEW INCIDENT WITH L.O.S BY 12/31.
12/06/89 Wed	NAOH L 1216 LBS.		C/A / A CAUSTIC	AUTOMATIC FEED VALVE ON #7 FILTER LEAKED BY. DRAIN TO COLLECTION SYSTEM WAS PLUGGED ALLOWING CAUSTIC TO GO TO THE 30" PROCESS SEWER. THIS RESULTED IN A PH EXCURSION FOR 45 MINUTES. (MP)	1. UNPLUG LINE FROM #7 FILTER TO COLLECTION SYSTEM. (DONE-12/6/89) 2. REV. SOP FOR THE MANUAL BLOCK VLV ON THE FD HEADR TO BE CLOSED WHEN A NAOH FILTER IS TAKEN OUT OF SERVICE(12/13)
12/12/89 Tue	CLHC/WASTEWATER L 9098 LBS.	NRC/DEQ TCE/WASTEWATER 1.7/9098	B/ TE II	THE PROCESS SUMP OVERFLOWED TO THE STORM SEWER AND THE STORM SEWER BACKED OUT OF THE CATCH BASINS AND ONTO THE SHELL AT 11 LOCATIONS IN TE II. (OP)	1. CLEAN UP CONTAMINATED SHELL. 2. DEVELOP A BLOCK/LOGIC DIAGRAM AND SOP TO PREVENT O/FLOW OF BAT AND PROCESS SUMPS INTO THE STORM WATER SYSTEM. 3. REVIEW ABOVE PROCEDURE(#2) WITH OP.

SL 088546

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
12/14/89 Thu	PER L 3 LBS.		B / PER/TRI	A SMALL PINHOLE LEAK DEVELOPED IN A STRAINER LID GASKET ON TOP OF A PER 208 DRYER. APPROXIMATELY 3 LBS. OF PERCHLOR LEAKED TO CONTAINMENT. (MP)	1. GASKET REPLACED ON SCREEN 12/14. PRESSURE CHECK SHOWED IT STILL LEAKNG 2. WILL CHECK SEALING SURFACE/RETIGHTEN LID/ETC THE WEEK OF 12/18.
12/17/89 Sun	CL2 G <5 LBS.		C/A / 'A' CL2	A FROZEN IMPULSE LINE TO CKT. 15 CL2 HEADER PRESSURE CONTROLLER FORCED CL2 INTO THE NEUTRALIZER. A VAPOR CLOUD WAS SEEN LEAVING THE NEUTRALIZER. CL2 WAS DETECTED AT HG CELL CONTROL ROOM (IP)	1. WOW-REPL EXISTING IMPULSE LINES W/ FRP MANIFOLD SYSTEM OF LARGER DIAMETER TO MIN. POTENTIAL OF ICE PLUGGING LINES. 2. TEMP HEAT LAMPS TO BE PROVIDED AT CRITICAL POINTS AND XTRA INSLN ADDED.
12/20/89 Wed	CL2 G 4 LBS.		SH/ A SHIPPING	WHILE PRESSURE TESTING A NEW CL2 LOADING LINE PRIOR TO RETURNING IT TO SERVICE, A DEFECTIVE ANGLE VALVE WAS FOUND NOT FULLY CLOSED. CL2 FROM EQUALIZER SYSTEM USED TO TEST THHE LINE ESCAPED THRU VLVE	1. SOP TO BE CHANGED TO DOUBLE CHECK ALL VALVES PRIOR TO TESTING.
12/22/89 Fri	HCL L 52 LBS.		B/ VCM II	TUBULAR GLASS S/G ON ATM. SCRUBBER FROZE AND BROKE, SPILLING HCL TO GROUND. SPILL DRAINED TO DITCH FLOWING TO OUTFALL 401. DUE TO FLOW OF FREEZE PREC. WATER, SPILL REACHED 401 BEFORE IT COULD BE DAMMED.	1. IMMEDIATELY INITIATE A POLICY TO KEEP SIGHT GLASS ISOLATED EXCEPT WHEN CONFIRMING A LEVEL. 2. INSTALL CONTAINMENT PAD AROUND BASE OF SCRUBBER (BY 4/89)
12/23/89 Sat	VC G 15 LBS.	NRC, DEQ VC 15	SHIPPING/ DOCKS	WHILE LOADING VINYL ONTO A BARGE, THE BLEED ON THE LOADING LINE CRACKED RELEASING VINYL. FREEZING WEATHER IS SUSPECTED TO HAVE CONTRIBUTED TO THIS FAILURE.	1. PERFORM MORE THOROUGH VISUAL INSPECTION OF ALL VALVES AND CONNECTIONS PRIOR TO LOADING.
12/23/89 Sat	NAOH L 14917 LBS	INTERNAL	C/A / 'A' CAUSTIC	CLEAR LINE FROZE DUE TO COLD WEATHER. RECIRC. PUMP TRIPPED CAUSING TK TO O/F. NAOH TITRATOR FROZE. NO ALARM WAS RECEIVED IN CONTROL ROOM. PH VIOLATION OCCURRED. (MP)	1. CLEAR AND CLOUDY TANKS O/F LINES TO BE LINE MOLED. 2. INSTALL HIGH LEVEL ALARMS ON #7 CLEAR AND CLOUDY TANKS.

SL 088547

SPILLS AND RELEASES AT LAKE CHARLES

DATE	MATERIAL/AMOUNT	REPORTED TO	PLANT AREA	DESCRIPTION	CORRECTIVE MEASURES
12/27/89 Wed	NAOH L 577 LBS.		C/A/ 'A' CAUSTIC	THE UNDERGROUND CELL LIQUOR TRANSFER HDR FROM 'A' CAUSTIC TO PLANT B FAILED. SPILL CAME TO SURFACE AND INTO STORMWATER RUN-OFF SEWER EXITING AT 004 OUTFALL. FREEZE DAMAGE DID NOT ALLOW PH NEUTR. TO WORK.	1. DET FAILURE MECHANISM OF CELL LIQUOR TRANSFER HEADER. DEVELOP ACTION PLAN TO PREVENT FUTURE SPILLS FROM LINE. 2. INST MANUAL ACID BYPASS VALVE AT 004. 3. CHECK OPERATION OF AUTO VLVS 1/SHIFT.
12/29/89 Fri	CL2 G 3 LBS.		C/A / HG CELL	THE HG CELL CIRCUIT WAS ENERGIZED TO WARM UP PRIOR TO STARTUP. NEUTRALIZER WAS HANDLING CL2 BEING SENT TO IT, UNTIL A SWING IN THE CONTROLLER OCCURRED. A SMALL CLOUD WAS EMITTED FROM THE STACK.	1. AN SOP WILL BE IMPLEMENTED TO PRESTRENGTHEN THE CAUSTIC CONTENT OF THE RECIRCULATED HYPO IN THE NEUTRALIZER.

SL 088548

LAKE CHARLES COMPLEX

1989 SPILL/RELEASE RECORD

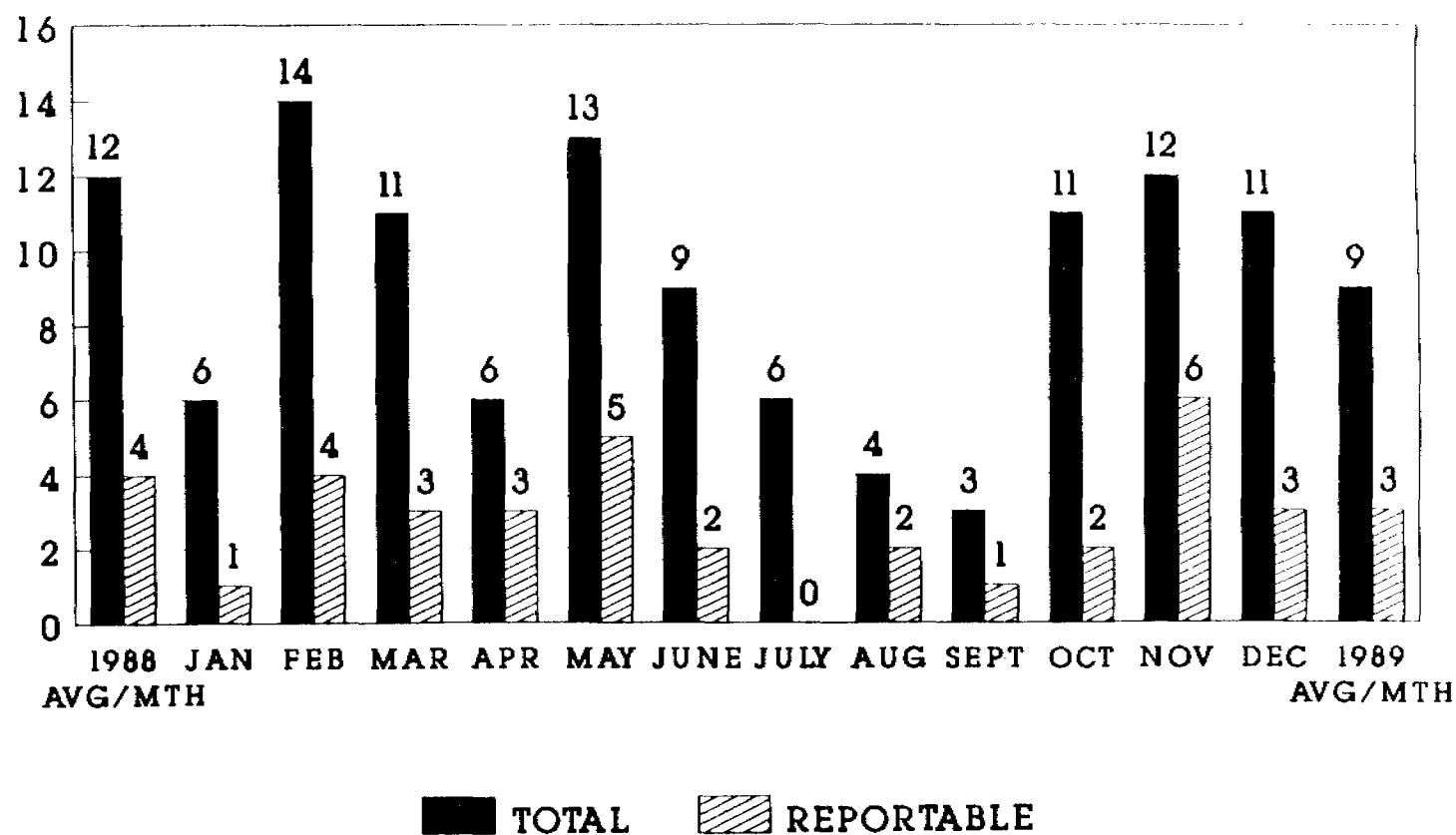
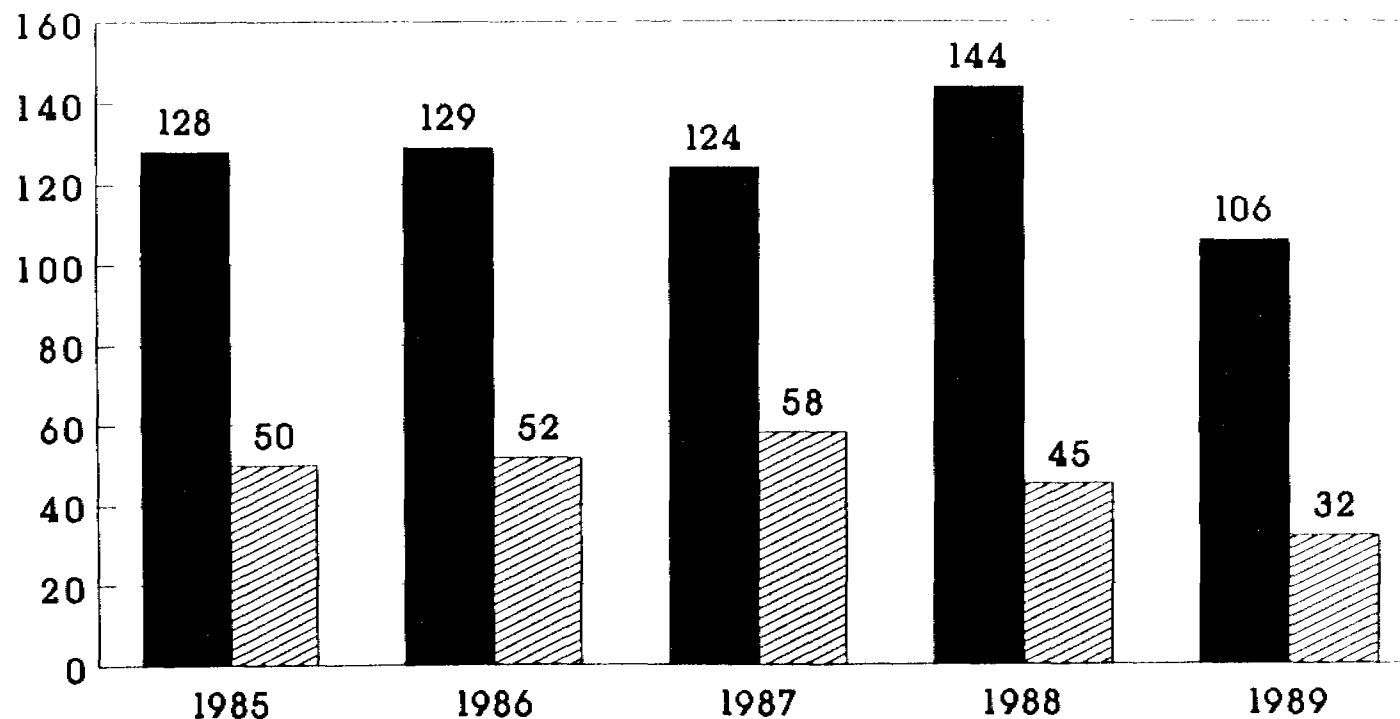


FIGURE 1

LAKE CHARLES COMPLEX

SPILL/RELEASE RECORD 1985-1989

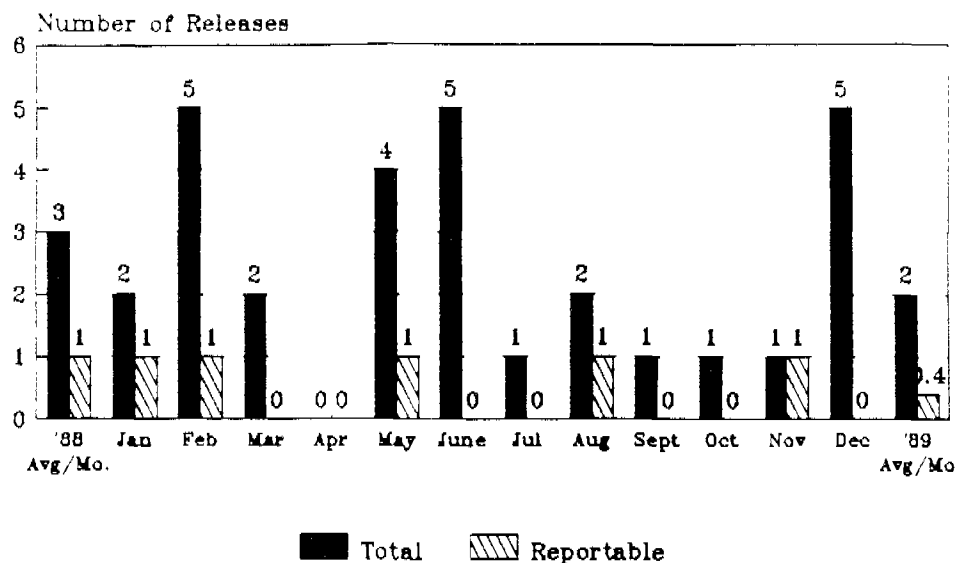


■ Total ▨ Reportable

Total Releases - 27% Reduction (from 1988)
Reportable Releases - 29% Reduction (from 1988)

FIGURE 2

LAKE CHARLES COMPLEX CHLOR/ALKALI RELEASES, 1989



LAKE CHARLES COMPLEX DERIVATIVES RELEASES, 1989

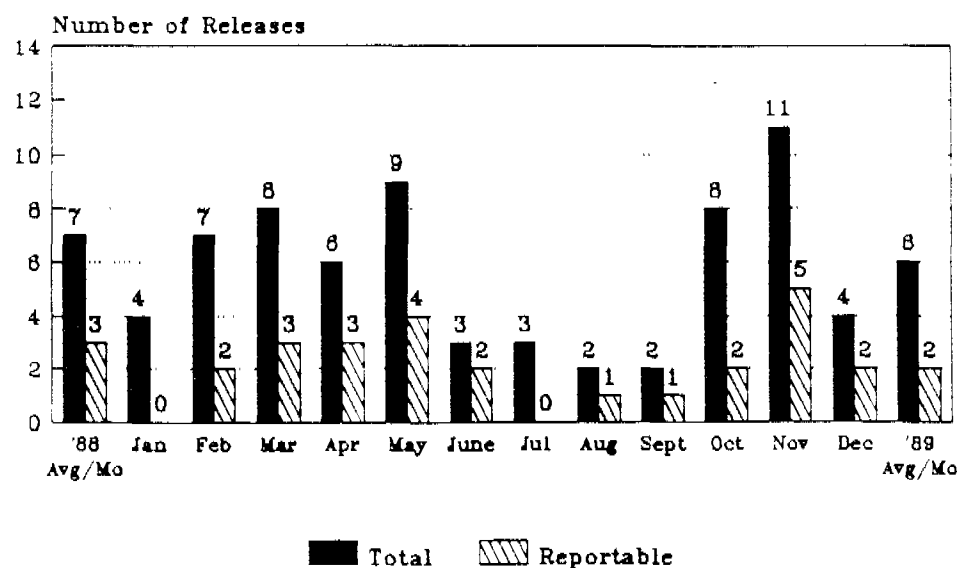
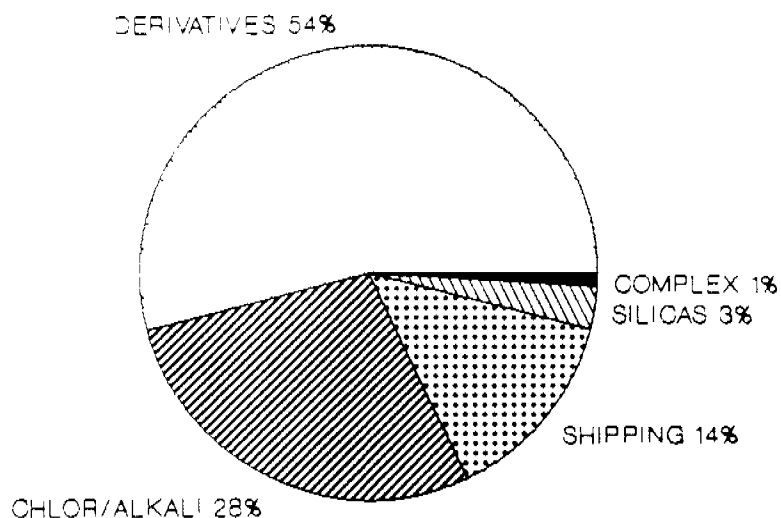


FIGURE 3

SL 088551

LAKE CHARLES COMPLEX TOTAL RELEASES 1988



LAKE CHARLES COMPLEX TOTAL RELEASES 1989

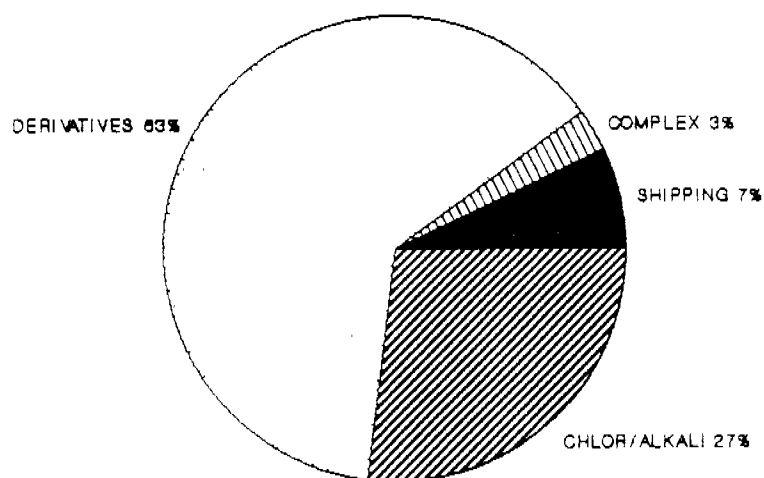
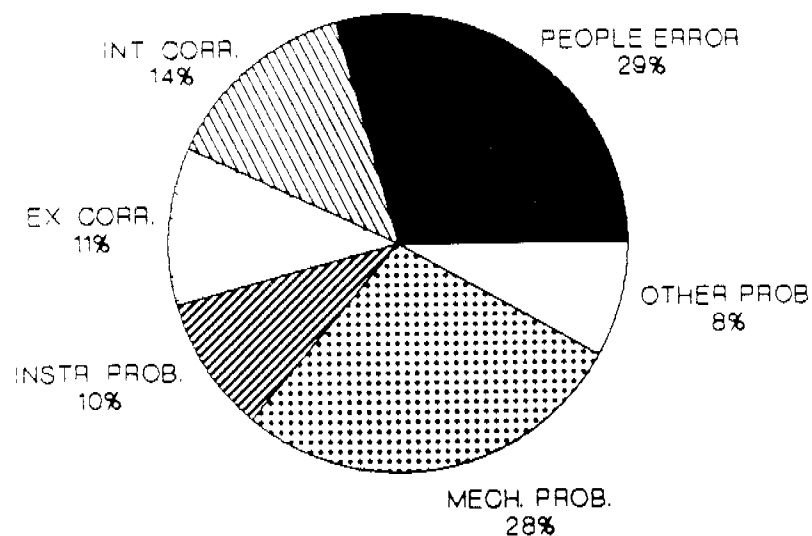


FIGURE 4

LAKE CHARLES COMPLEX

CAUSES FOR TOTAL RELEASES 1988



LAKE CHARLES COMPLEX

CAUSES FOR TOTAL RELEASES 1989

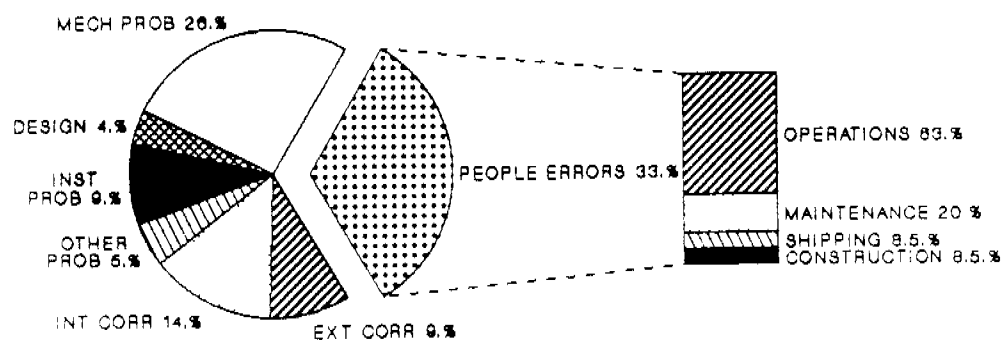
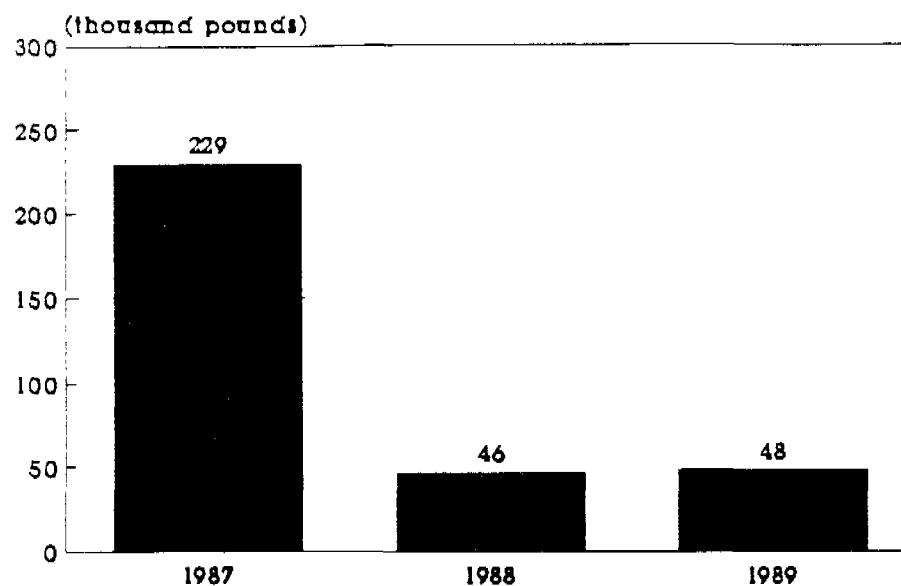


FIGURE 5

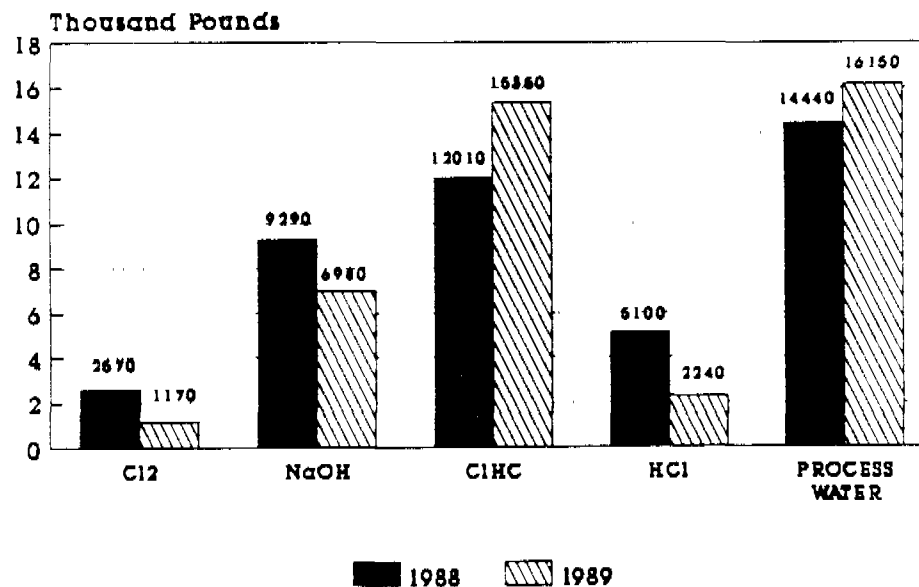
CAUSE1

LAKE CHARLES COMPLEX CHEMICALS RELEASED TO THE ENVIRONMENT



1/90

LAKE CHARLES COMPLEX CHEMICALS RELEASED TO THE ENVIRONMENT

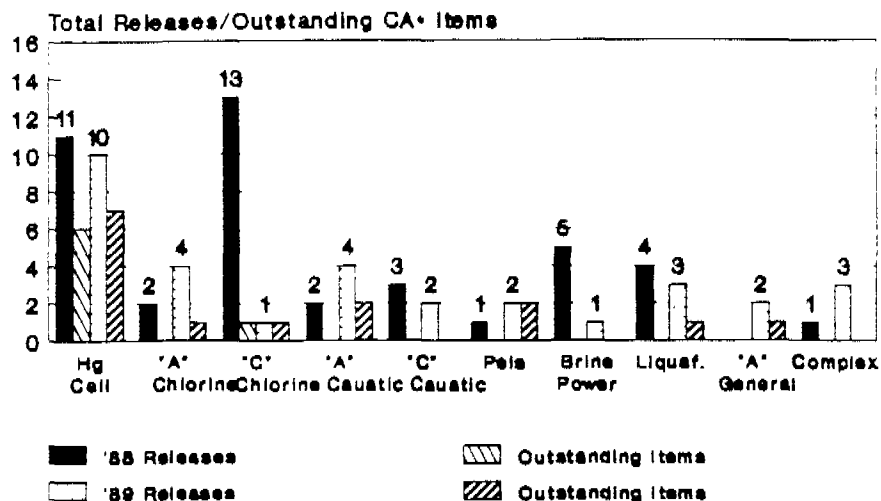


1/90

FIGURE 6

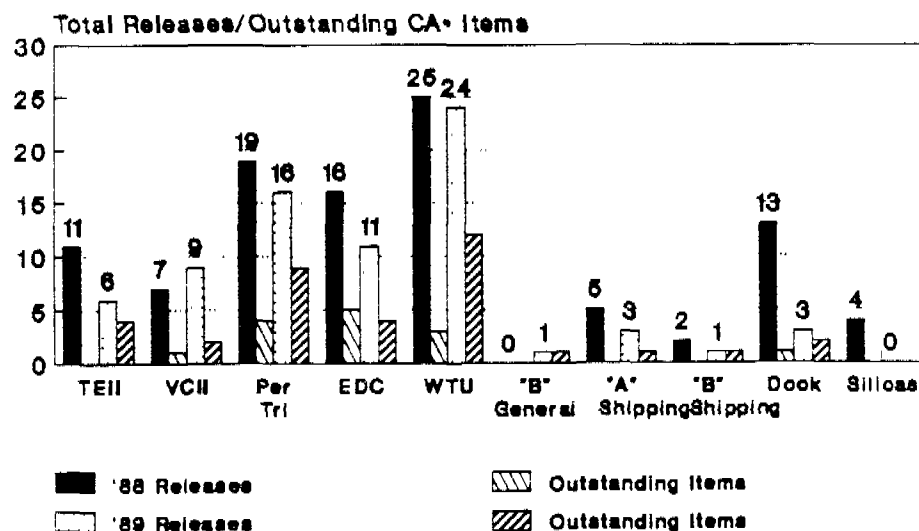
SL 088554

LAKE CHARLES COMPLEX SPILLS/RELEASES BY UNIT



*Corrective Action Items 1/90

LAKE CHARLES COMPLEX SPILLS/RELEASES BY UNIT



*Corrective Action Items

1/90
FIGURE 7

SL 088555

A T T A C H M E N T I I

QUARTERLY UPDATE SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
01/14/88	EDC G 198 lbs.	B/ WTU	A SLUG OF ORGANICS WAS FED TO #2 CSS CAUSING RUPTURE DISC TO BLOW FOR ABOUT 1 MIN. NO UNUSUAL INCIDENTS IN THE OHC UNITS APPEAR TO BE PRECURSORS.	DISCUSSIONS ARE BEING HELD WITH VCM-11 AND TE-11 ON THIS MATTER. RESULTS AND PLANS WILL BE WRITTEN AND PRESENTED TO THE COMMITTEE WHEN COMPLETE. INVESTIGATE PROVIDING PHASE-OFF CAPABILITY AT CSS.
03/24/88	CHLORINE G ★ 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.	REVISE PROCEDURES TO PUT VENTS TO INCINERATORS BEFORE CHLORINE ADDITION. REVIEW WITH OPERATORS.
05/06/88	CLHC L 34 lbs.	B/ VC-11	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.(COLOR CODING)
05/09/88	CHLORINE G ★ 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.
05/18/88	MERCURY L ★ 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 ANAL.-IDENT. CAUSE OF LEAKS. (DONE) FLANGE GUARDS ARE BEING INST. TO PREVENT SPRAY (DONE). TEST PROGRAM TO IDENTIFY A BETTER GASKET MATL.(IN USE) SOME CONTMNT. AREAS TO BE WIDENED.(1990)
06/01/88	TRICHLOR L 216 lbs.	B/ PER/TRI	TRI SHIPPING TANK OVERFLOWED. DISCREPANCIES IN LEVEL INDICATORS RESULTED IN THE OVERFLOW SITUATION.	ENGR. NOW TO INST. HIGH HIGH LEVEL ALARM REVISE LOGSHEET TO RECORD VAREC & BOARD INDICATION ON ALL AREA PROD/SHIPPING TKS INSTALL VARECS ON HVS STILL & P/T STILL FEED TANKS.-1ST QTR 1990 COMPLETION-

SL 088556

QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
06/05/88	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.
06/09/88	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.
06/14/88	CLHC G 49.3 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. ENGR. NOW TO FIND RELIABLE LVL IND. FOR DH FEED TK ORGANIC LEVELS AND INSTALL LOW LEVEL ALARM.(IN ENGR). EXAMINE PIPING FOR COLLAPSED LINER.
06/18/88	CLHC L 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. REINF.PADS USED TO REDUCE LEAK POTENTIAL NOW TO RUN INCINERATOR FEED PIPING IN A CONCRETE TRENCH.(TO BE DONE IN 1990).
07/10/88	CHLORINE G 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 HAS BEEN PERFORMED. RECOMMENDATIONS FOR THE NEUTRALIZER PROTECTION SYSTEM ARE BEING IMPLEMENTED.
07/10/88	PERCHLOR G 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.	INVESTIGATED REROUTING OF RD VENT FROM BOTTOM OF STILL TO SOMEWHERE ELSE.(NOT POSSIBLE PER INDUSTRIAL ENGINEERING.) ENGR. NOW TO RPL THE DH STILL AND INCR. PRESSURE RATING.(IN ENGINEERING)

SL 088557

QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
07/10/88	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. <i>- complete</i>
07/14/88	MERCURY L 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.	INSTALLED FLANGE GUARDS ON ALL MERCURY PIPING FLANGES WITH LEAK POTENTIAL TO GROUND. CURBING WILL BE EXTENDED TO CONTAIN ALL POTENTIAL SPILLS. (TO BE DONE IN 1990).
07/27/88	TRICHLOR G 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.	INSTALL A PRESSURE TRANSMITTER FOR THE TOPPING STILL. (ENGR. WORK) WILL BEGIN DAILY CROSS-CHECKING OF SIGHT GLASS/FIELD LEVEL INDICATORS VS LEVEL TRANSMITTERS/BOARD INDICATIONS.(DONE)
08/11/88	CHLORINE G 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.
08/23/88	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 RESET TO 2.75" WATER VACUUM.(DONE) A NEW ATMOSPHERIC VENT VALVE ACTUATOR WILL BE INSTALLED. INITIATE WO/PROJECT TO REVISE INTAKE OF ATMOSPHERIC AIR TO STOP CL2 ESCAPE AT THIS LOCATION.
09/02/88	HCL G 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.

SL 088558

QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
09/15/88	CHLORINE G 5 lbs.	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.
11/22/88	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.-COMPLETE 1/89.- THE SUMP COULD BE RELOCATED AND DIKED. -UNDER STUDY-
12/13/88	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.	RPRD TI AND ALRM 12/14/88. SOP TO BE REV TO INSURE ORG GO TO L/S HDR DURNG UPSET INSTEAD OF CSS. COOLER HAS BEEN INSTLLED AT VDCM. ENGR INVEST. STRIPPER AT VDCM. INST MORE RELIABLE TRANSMITTER.
12/20/88	CHLORINE G 3 lbs.	CA/ Hg CELL	CHLORINATED BRINE OVERFLOWED FROM THE DEPLETED BRINE TANKS DUE TO A PUMP NOT OPERATING PROPERLY.	OVERHAUL PUMP AND RESET CLEARANCES TO CORRECT CAPACITY PROBLEMS. (DONE) INST A SECOND ALARM TO GIVE EARLIER WARNING ON TANK LEVEL.(WOW)

SL 088559

QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
01/25/89	CHLORINE G ★ 465.4 lbs.	CA/ Hg CELL	SANDBLASTER PUT A HOLE IN INSTRUMENT SIGNAL TUBING TO NEUTRALIZER GAS EXHAUSTERS. THIS RESULTED IN LOSS OF NEUTRALIZER INLET VACUUM AND DIVERSION TO RIVERSIDE PWRHSE STACK.	PM EXHAUSTER SUCTION VALVE ACTUATORS. (ONE COMPLETE). REVISE ACTION OF THE VALVES TO FAIL OPEN UPON LOSS OF SIGNAL OR AIR SUPPLY. MODIFY DIVERSION SYSTEM(PE)
01/30/89	ELHC/WATER G 0.1/1141.3 lbs.	B/ WTU	RUPTURE DISC ON #1 CSS FEED TANK BLEW. SUSPECT PREMATURE FAILURE AS NO INDICATIONS OF EXCESSIVE TEMPERATURE OR PRESSURE IN THE TANK WERE OBSERVED.	REVIEW SOP'S REGARDING REMOVAL OF PHASE ORGANICS FROM FEED TANKS(DONE). REVIEW CONTRACT W/ OHC TO MINIMIZE PHASE ORGANIC ENTERING FD TKS(IN PROGRESS). DEV. CONTR W/ VDCM TO COOL BTMS. (COOLER INSTALLED)
02/03/89	NaOH L 200 lbs.	CA/ PELS	STG. BIN #1, PLUGGED WITH WET PRILLED CAUSTIC, WAS BEING WASHED TO PELS SUMP. BREAKTHROUGH OF A PLUG AT THE BOTTOM DISCHARGE RELEASED A SURGE OF CAUSTIC WATER THAT OVERFLOWED CONTAINMENT.	PROC. FOR WASHING OUT A PLUGGED BIN TO BE REVIEWED WITH PACKERS. (MP) EVALUATE DETECTION DEVICES TO ALARM WHEN WET MATL ENTERS BUCKET ELEVATOR. QAT TO DEFINE CHANGES TO PREVENT WET MATL ENTERING.
02/11/89	CHLORINE G 5.8 lbs.	CA/ LIQUIFICATION	A LINE ON EXPANSION BOTTLE AT TANK 20 DEVELOPED A LEAK IN THE THREADED CONNECTION.	CONNECTIONS ARE BEING CHANGED TO ALL WELDED CONNECTIONS EXCEPT FOR CONNECTION TO A BLOCK VLVE. THIS IS BEING DONE THRU ATTRITION(EC). 28 OF 60 SETS OF BOTTLES/ PIPING HAVE BEEN UPGRADED(AS OF 1/3/90)
02/26/89	HCL G 75 lbs.	B/ WTU	SPLIT FLANGE HOLDING A BLIND FLANGE ON THE OLD OHC VENT HEADER WAS SEVERELY CORRODED AND STARTED LEAKING.	VENT HEADER HAS BEEN INSPECTED AND PARTS REPLACED W/ DEREKANE AND/OR FURAN.(DONE) EVALUATION AS TO POTENTIAL TROUBLE AREAS WILL BE DONE. (EC)(REPLACING OLD HEADER PIPING-SHOULD BE COMPLETE 7/15).
03/14/89	PERCHLOR L ★ 8632 lbs.	B/ PER/TRI	AS A RESULT OF POOR COMMUNICATIONS, THE PER STABILIZER POT OVERFILLED ALLOWING PERCHLOR TO SPILL TO THE GROUND.	INVEST. INSTALLING SPRING-LOADED VALVES. REROUTE STABILIZER SUMP OVERFLOW DRAIN. COUNSEL OPERATOR.(DONE) WRITE SOP TO STATE AN AUX. OPR MUST STAY IN BLDNG WHILE STABILIZING.(PE) (DONE)

SL 088560

QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
03/14/89	VDCM G 2034 lbs.	SH/ SHIPPING B	A T/C WAS CONNECTED FOR LOADING BY CONNECTING LIQUID LINE TO VENT VALVE OF CAR AND INCIN. VENT HOSE TO LIQUID VALVE OF CAR. VENT SYSTEM RUPTURE DISC BLEW WHEN LOADING BEGAN.	INST LIQ SENSOR AND CONTROL VLV IN VDCM INCIN. VENT LINE AT T/C LOADING STATIONS TIE TOGETHER SENSORS, CONTROL VLVS, AND PUMP SWITCHES TO STOP FLOW IF LIQUID IS SENSED.(PE)(IM ENGR).-INST END OF 8/89.
03/17/89	CHLORINE G 6 lbs.	CA/ Hg CELL	NEW LEAD OPERATOR CONFUSED SEQUENCE OF STARTUP ACTIONS. LOAD WAS RAISED BEFORE PRODUCTION WAS IN LIQUIFACTION SYSTEM. RESULTING SYSTEM BACKPRESSURE CAUSED A RELEASE FROM THE CELL ROOM.	INCIDENT WAS REVIEWED WITH OPERATOR. HE IS TO WRITE A PROCEDURE FOR SOP. SOP TO BE FINALIZED BY 4-14-89. (PE)
04/04/89	CLHC/WATER G ★ 41.7 lbs/3700 lbs	B/WTU	Rupture disc blew on CSS Feed Tanks due to RISING TEMPERATURE AND LEVEL DURING a rate change on the VDCM Reactor.	1. INSTALL A COOLER ON VDCM RX BTMS BY 4/30/89. (DONE) 2. Divert VDCM Rx btms stream out of CSS SYSTEM(ENGR. WOW).
04/28/89	VC G ★ 47.5 lbs	B/VCM II	#1 SRV ON VC PRODUCT STILL REFLUX DRUM LIFTED DURING START-UP.	1. MOD S/UP SOP(COMPLETE BY 6/15)(DONE) 2. Form QAT to finalize Start-up SOP for GOING ON RECYCLE(COMPLETE BY OCT.) 3. CALL AN ORC MEETING TO DISCUSS
05/08/89	HCL L 171 lbs.	B/WTU	A FLANGE LEAK DEVELOPED ON THE STRONG ACID HEADER AT THE NW CORNER OF THE BTMS PLANT.	1. IMPLEMENT CLOSER INSPECTION OF PIPELINES. 2. CHANGE FREQUENCY OF INSPECTIONS IF REQUIRED.
05/12/89	CL2 G ★ 86 lbs.	A/Hg Cell	AN UPSET OCCURRED IN CELL FD PH WHEN AN ACID BYPASS VLV WAS LEFT OPEN. HIGH TEMP RESULTED CAUSING THE CL2 COMPRESSOR AT LIQUEF. TO BE TRIPPED. THIS CAUSED THE NEUTRALIZER TO BE OVERLOADED.	1. AN ORC MTG. WAS HELD TO DISCUSS PROPOSED CHANGES. (DONE) 2. RPL. ACID BYPASS VLV W/ SMALLR (DONE) 3. INST ADDITOMAL INSTRUMENTATION. 4. COMPLETE STUDY ON CAPACITY OF NEUTR.

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QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
05/17/89	NaOCl L 394 lbs. ★	B/WTU	A GASKET BLEW OUT ON THE TRANSFER LINE FROM HG CELL UNIT TO SODIUM FORMATE. .	1. REVIEW PIPELINE INSP PROGRAM.(THIS LINE WAS MISSED ON EARLIER INSPECTN) 2. CHECK THAT GASKET TYPE IS PROPER FOR
05/21/89	F024 L 171 lbs. ★	B/WTU	INCINERATOR FEED LINE DEVELOPED A HOLE CAUSING A SPILL TO THE GROUND. .	1. INSTALL INCINERATOR FEED LINES IN TRENCHES IN 1990. 2. INSTALLED REINFORCEMENT PADS TO
06/06/89	NaOH L 125 LBS.	CA/PELS SHIPPING	WASH PAN DRAIN DEVELOPED A PLUG IN LINE CAUSING MATERIAL TO BACK UP AND ESCAPE THE WASH PAN, CAUSING A VIOLATION. .	1. HYDROBLASTED SEWER LINE CLEAR. 2. COMMUNICATION MTG. TO BE HELD WITH PELS PACKERS TO RE-EMPHASIZE IMPORTANCE OF PROMPT REPORTING OF SPILLS. .
06/16/89	NaOH L 820 LBS.	CA/ PH CONTROL	CELL LIQUOR WAS SPILLED TO THE GROUND WHEN THE CELL LIQUOR LINE FROM TANK #6 WAS BEING CLEARED FOR MAINTENANCE. THE LINE WAS IMPROPERLY ISOLATED AND TAGGED. .	1. UPDATE AND DISTRIBUTE A FLOW DIAGRAM OF THE CELL LIQUOR COLLECTION AND DISTRIBUTION SYSTEM.
06/24/89	HCL L 62 LBS.	B/WTU	A HOLE DEVELOPED IN THE WEAK ACID TANK ALLOWING ACID TO LEAK ONTO THE GROUND AND INTO THE SEWER (INTERNAL CORROSION). .	1. INSPECTION DEPT. WILL INSPECT TANK ON 6/27. PENDING RESULTS OF THIS INSPECTION, ROUTINE INTERNAL INSPECTION OF THIS TANK WILL CONTINUE.
06/27/89	CL2 G 1.5 LBS.	CA/ HG CELL	THE DEPLETED BRINE TANKS OVERFLOWED CHLORINATED BRINE AS A RESULT OF A PUMP BEING SHUT DOWN FOR A GROUND SEARCH AND NOT RESTARTING. .	1. HOW TO INST LOWER HIGH LEVEL ALARM ON DEPLETED BRINE TANKS. 2. DEVELOP SOP FOR DETECTING ELECTRICAL GROUNDS. SOP WILL HIGHLIGHT EQUIPMENT TO HAVE SPARE RUNNING PRIOR TO S/D.
06/29/89	CL2 G 9 LBS.	CA/'C' CL2	DURING STARTUP OF A CIRCUIT, CL2 WAS DIVERTED TO THE NEUTRALIZER PER SOP. AT THAT TIME A SMALL AMOUNT OF CL2 BROKE THROUGH DUE TO A CAUSTIC NOZZLE FALLING OFF THE FEED DISTRIBUTION HEADER.	1. INVESTIGATE METHOD TO PREVENT THE CAUSIC NOZZLES FROM FALLING OFF AND INSTALL DURING NEXT INTERNAL INSPECTION SCHEDULED FOR 10/89.

SL 088562

QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
07/03/89	HCL G 17 LBS.	B/ WTU	THE RUPTURE DISC ON #3 WASTE STORAGE TANK BLEW PREMATURELY(<5 LBS.). . . .	1. CONT. EMPHASIS W/ MAINT. ON PROPER INSTALLATION OF GRAPHITE DISCS(SPIER) 2. RPL SOLENOID ON VENT VALVE(DONE) 3. CHECK ALL PI'S ON WST FOR PROPER OPR. 4. INST DRAINS ON R/D STACKS(DONE)
07/29/89	PER L >0.5 LBS.	B/ PER-TRI	PERCHLOR SPILLED TO THE PAD WHEN THE RECYCLE HEADER ON THE PER/TRI STILL LINE BEGAN LEAKING DUE TO CORROSION. . .	1. LINE WAS CLAMPED TO STOP LEAK. THIS LINE HAD ALREADY BEEN IDENTIFIED FOR REPLACEMENT(DONE). 2. PER/TRI ENV. QAT TO DEVELOP AN ACTION PLAN.
08/20/89	HG L 2 LBS.	★ CA / HG CELL	CELL #3 DEVELOPED A FLANGE LEAK ON HG INLET LINE. DESPITE HAVING A FLANGE GUARD, HG WAS BLOWN OUT PAST CONCRETE PAD BARRIER AND ONTO THE SHELL AREA SOUTH OF THE CELL BUILDING.	1. A NEW TYPE OF FLANGE GUARD HAS BEEN INSTALLED. 2. EXTENSION OF CURBED CONTAINMENT IS ONE PHASE OF IMPROVEMENTS TO CELL RM AND RCRA SITE.(COMPLETE BY 6/90).
08/31/89	EDC L 105 LBS.	B / EDC	STARTED THE REFLX PUMP TO #1 STRIPPER, MATERIAL WENT FORWARD TO THE STRIPPER & ALSO FLOWED BACKWARD THRU A CHECK VALVE & OUT A PARTIALLY OPEN BLD VLV AT #4 REC PMP. MATL SPRAYED FROM #1 PLT TO GROUND.	1. RPL BAD CHECK VLV DURING NEXT OUTAGE. (BY 11/30/89) 2. SURVEY BLEED VALVES IN AREA.(10/30) 3. PLUG ALL BLD VLVs NOT OVER CONTAINMENT 4. BLD VLVs OVER CONT. WILL POINT DOWN.
10/02/89	#2/VC G 0.95LBS/0.02LBS.	B/ EDC- EC/HCL	VENTS TRIPPED OUT OF #1 INC. SAT. 9/30. VENTS WERE ROUTED TO #2 INC. VCI VENT HEADER ISOLATION VALVE WAS NOT OPENED. SHIPPING CLEARED NOSES INTO THE VENT HDR AFTER THIS TIME. R/D FOUND LEAKING 10/2.	1. INST LOW PRESSURE ALRM FOR HDR. 2. CHECK PRESSURE RECORDER. 3. PROOFTEST HIGH PRESSURE TRIPS. 4. COUNSEL L.O. AND INC. OPERATORS.
10/03/89	HCL G <100 LBS.	B/ PER/TRI	THE EXPANSION JOINT ON #4 RX PULLED OUT OF STEEL FLANGE WHILE MAINTENANCE WAS ATTEMPTING TO REPAIR A MINOR LEAK. . .	1. THIS EXP. JOINT WILL BE EXAMINED ON EACH RX TO VERIFY THAT EACH HAS STAY BOLTS OR IS RPL WITH ONE THAT DOES. 2. REVIEW WITH MAINT PERSONNEL 3. RPR THE HCL FLOW CONTROL VALVE.

SL 088563

QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
10/03/89	CLHC G 180 LBS. ★	B/ WTU	THE LEVEL INDICATOR FLOAT CHAMBER FLOAT FAILED CAUSING THE LCV TO NOT SEE A LVL IN THE DH STILL. THE STILL WAS OVERFED, RESULTING IN A RELEASE THROUGH THE RUPTURE DISC.	1. RPL AND MORE THOROUGHLY CHECK ALARM SYSTEM LIGHTING. 2. RPR LEVEL FLOAT AND FLOAT CHAMBER 3. INV. USING DP SYSTEM AS A REDUNDANT LEVEL ALARM-MAY TIE IN TO SDS.
10/04/89	PER L 2.3 LBS.	B/ PER/TRI	SMALL PINHOLE LEAK DEVELOPED ON THE BOTTOM SIGHTGLASS NOZZLE ON THE CLEAN UP STILL REFLUX DRUM. PERCHLOR SPRAYED ONTO THE CONTAINMENT PAD.	1. VESSEL WAS CLEARED FOR ENTRY/INSPTN. 2. RPL LEAKING NOZZLE AND MAKE ANY OTHER REPAIRS AS RECOMMENDED BY LOSS PREV. 3. TAKE THICKNESS READINGS ON NOZZLE IN EFFORT TO DETERMINE CAUSE OF FAILURE.
10/04/89	PER L 40 TONS	SHIPPING/ DOCKS	CSCC BARGE 202 WAS LOADED WITH PERCHLOR. LEAD LOADER FOUND A LEAK FROM A CARGO TANK INTO DRY COMPARTMENT OF BARGE.	1. BARGE WAS SENT TO SHIPYARD FOR INSPECTION.
10/12/89	HCL G 44 LBS.	B/ TE II	THE TRI-ETHANE FURNACE DEVELOPED A TUBE LEAK ALLOWING EDC TO ESCAPE INSIDE THE FURNACE. ONLY HCL ESCAPED TO THE ATMOSPHERE.	1. TUBES ARE TO BE REPLACED IN DECEMBER '89. THE FABRICATION IS NOW IN PROGRESS.
10/19/89	EDC L 14 LBS.	B/ TE II	BLOCK VALVE ON #4 OHC REACTOR PRIMARY VENT M/S BYPASS DEVELOPED A LEAK AT THE STEM.	1. THE VALVE WILL BE REPLACED WITH A NON-DIAPHRAM TYPE TEFLON LINED VALE DURING THE NEXT OHC II REACTOR OVERHAUL.
10/28/89	CLHC L 78 LBS. ★	B/ WTU	WHILE TRANSFERRING MATERIAL FROM A VACUUM TRUCK INTO THE TOP OF A RENTAL FRACK TANK LOCATED ON N. CLASSIFIER PAD, THE HOSE BEING USED BLEW OUT OF THE TANK SPRAYING MATERIAL ONTO THE GROUND.	1. INSPECT RENTAL TANKS TO ENSURE AN UN-LOADNG FITTING IS IN PLACE BEFORE USE 2. REVIEW INCIDENT W/ SERVICE PERSONNEL AND AT NEXT ENV. QAT MEETING. 3. SLDGE MGMT TO INCL ELIM. OF TEMP. TKS

SL 088564

QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
10/31/89	CLHC/HCL L 24 LBS.	B VCM 11	A WELD UPSTREAM OF THROTTLING VLV ON #2 VC DOPP KETTLE FEED LINE DEVELOPED A PIN HOLE LEAK SPRAYING APPROX. 2.5 GALLONS OF DOPP KETTLE FEED ONTO THE PAD AND GROUND.	1. RPL SECTION OF FEED LINE TO #2 VC DOPP KETTLE WITH SCHEDULE 80 PIPE RATHER THAN SCHEDULE 40 AS WAS THE ORIGINAL PIPE.
11/02/89	CLHC/HCL G 4.42 LBS	★ B/ PER/TRI	A LEAK DEVELOPED ON A PER/TRI REACTOR CATALYST CATCH POT RUPTURE DISC NOZZLE. OPERATORS BEGAN S/D OF RX BUT COULD NOT EST. FLUSH WATER FLOW TO COND. LK WAS CLAMPED UNTIL LINE COULD BE ISOLATED(EC)	1. REVISED PIPING-REVIEW OTHERS AS WELL. 2. RETURN STM TRACING TO SERVICE. 3. EST W2 PURGES ON #4 RX CATCH POT, AS OTHERS. 4. VISUAL INSP OF ALL POTS. 5. INCL CATCH POTS ON VIDS PROGRAM 6. REWORK FLUSH CV.
11/10/89	PER L 709 LBS.	B/ PER/TRI	A LEAK DEVELOPED ON THE DISCHARGE OF THE P/T HVS STILL REFLUX PUMP AT PER STILL FEED NOZZLE WELD. THE LEAK WAS CLAMPED ALL PERCHLOR WAS CONTAINED ON THE CONCRETE PAD. (IC)	1. LOSS PREVENTION TO TAKE UV READINGS OF PIPING SURROUNDING WELD -DONE- 2. WOW TO RPL PER FEED NOZZLE ON THIS LN 3. P/T ENV. QAT ADDRESSING THIS LOCATION AS A POTENTIAL PROBLEM AREA.
11/10/89	PER, TRI G 410 LBS.	★ B/ PER/TRI	THE PER/TRI STILL FEED LINE DEVELOPED A LEAK. DUE TO THE TEMPERATURE OF THE MATERIAL(210 F), VAPORIZATION TO THE AIR OCCURRED. (IC)	1. TEMPORARY CLAMP INSTALLED -DONE- 2. WOW TO REPLACE THIS SECTION OF PIPE. 3. MOISTURE RIG WAS CHECKED TO VERIFY THE MATERIAL WAS DRY -DONE- 4. P/T ENV QAT STUDYING INT CORR PROBLEM
11/14/89	CL2 G 45 LBS	★ C/A / HG CELL	AS THE HG CELL UNIT WAS SHUT DOWN, THE LIQUOR IN THE NEUTR. HYPO TANK BECAME SATURATED W/ CL2 AND DID NOT HANDLE THE ENTIRE CL2 STREAM BEING SENT TO IT. PPG WAS NOTIFIED OF PROBLEM BY TETRA. (OP)	1. AN SOP WILL BE WRITTEN OUTLINING PROPER CAUSTIC ENRICHMENT OF THE HYPO RECIRCULATING SYSTEM PRIOR TO HIGH CL2 FLOWS TO THE NEUTRALIZER.
11/15/89	PER, TRI L 13 LBS	B/ PER/TRI	A LEAK DEVELOPED IN THE SIDE OF A BALL VALVE DOWNSTREAM OF THE #2 DH STILL LCV ON A DEAD-ENDED SECTION OF PIPING. ALL MATERIAL RELEASED WAS CONTAINED ON THE PAD. (IC)	1. THE BLOCK VALVE WAS REPLACED. 2. THIS AREA HAS BEEN IDENTIFIED BY THE P/T ENV QAT AS AN AREA OF POTENTIAL INTERNAL CORROSION PROBLEMS. THE QAT WILL MAKE RECOMMENDATIONS.

SL 088565

QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
11/15/89	HCL G 35 LBS	B/ EDC - EC/HCL	A LEAK DEVELOPED ON THE OLD HCL HEADER DUE TO EXTERNAL CORROSION. (EC)	1. NOW TO REPLACE THIS SECTION OF PIPING 2. CONTINUE TO MAKE QUARTERLY PIPELINE INSPECTIONS.
11/16/89	PER L 26 LBS	B/ PER/TRI	A LEAK DEVELOPED IN WELD OF PER STILL FEED NOZZLE ON THE DISCHARGE OF THE MVS STILL REFLUX PUMP(SEE 11/10 SPILL). ALL MATERIAL WAS CONTAINED ON THE PAD. (IC)	1. P/T ENV QAT CURRENTLY ADDRESSING THIS LOCATION AS A POTENTIAL FOR INT CORR. 2. NOZZLE WAS REPLACED -REFLUX HEADER METAL LOOKED GOOD.
11/21/89	CLHC G 1.4 LBS	B/ WTU	OPERATOR DISCOVERED A BLOWN RUPTURE DISC ON #1 WTU PHASE SEPARATOR. INVESTIGATION REVEALED A HIGH ORGANIC LEVEL IN THE PHASE SEPARATOR. (OP)	1. START SLUDGE KETTLE SYSTEM TO REDUCE VOLUME OF SLUDGE AND CL2 CONCENTRATION BEING SENT TO WASTE TECH. 2. SLUDGE MGMT MUST INCLUDE A MEANS OF SLUDGE REMOVAL FROM CRITICAL SYSTEMS.
11/22/89	EC G 58 LBS	★ B/ EDC - EC/HCL	A GASKET FAILED IN THE 2 INCH VENT CONDENSATE LINE. THIS FAILURE WAS BETWEEN THE PUMP DISCHARGE AND THE PRIMARY STRIPPER FEED TANK. (MP)	1. THE GASKET WILL BE REPLACED IMMEDIATELY. 2. A TEST SECTION OF PIPE IS TO BE PUT INTO SERVICE AND INSPECTED AFTER 30-45 DAYS OF EXPOSURE.
11/29/89	OIL L	★ B/ 'B' GENERAL	AN OIL SHEEN WAS SPOTTED PAST PPG BOOM IN THE CANAL. AN OIL LAYER WAS DISCOVERED ON THE WUT FEED TANK INVESTIGATION COULD NOT PINPOINT A SINGLE SOURCE NOR IDENTIFY THE OIL.(OP)	1. SCC TO ADDRESS AND DEVELOP ACTION PLAN EMERGENCY SPILL RESPONSE TASK FORCE 2. MEMO TO BE ISSUED TO DERIVATIVES OPN PERSONNEL ON IMPACT OF OIL IN SEWERS.
12/06/89	CLHC G 7 LBS.	★ B/ WTU	NO. 1 CENTRAL STEAM STRIPPER FEED TANK WAS OVERFILLED CAUSING THE RUPTURE DISC TO BLOW. (OP)	1. OPERATOR INVOLVED WILL BE COUNSELED- POSSIBLE DISCIPLINARY ACTION 2. SOP TO BE WRITTEN TO ADDRESS HIGH ORGANICS IN SF FEED BY 12/31/89. 3. REVIEW INCIDENT WITH L.O.S BY 12/31.

ST 088566

QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
12/12/89	CLMC/WASTEWATER★ 9098 LBS.	B/ TE 11	THE PROCESS SUMP OVERFLOWED TO THE STORM SEWER AND THE STORM SEWER BACKED OUT OF THE CATCH BASINS AND ONTO THE SHELL AT 11 LOCATIONS IN TE 11. (OP)	1. CLEAN UP CONTAMINATED SHELL. 2. DEVELOP A BLOCK/LOGIC DIAGRAM AND SOP TO PREVENT O/FLOW OF BAT AND PROCESS SUMPS INTO THE STORM WATER SYSTEM. 3. REVIEW ABOVE PROCEDURE(#2) WITH OP.
12/17/89	CL2 G <5 LBS.	C/A / 'A' CL2	A FROZEN IMPULSE LINE TO CKT. 15 CL2 HEADER PRESSURE CONTROLLER FORCED CL2 INTO THE NEUTRALIZER. A VAPOR CLOUD WAS SEEN LEAVING THE NEUTRALIZER. CL2 WAS DETECTED AT HG CELL CONTROL ROOM (IP)	1. WOW-REPL EXISTING IMPULSE LINES W/ FRP MANIFOLD SYSTEM OF LARGER DIAMETER TO MIN. POTENTIAL OF ICE PLUGGING LINES. 2. TEMP HEAT LAMPS TO BE PROVIDED AT CRITICAL POINTS AND XTRA INSLM ADDED.
12/20/89	CL2 G 4 LBS.	SH/ A SHIPPING	WHILE PRESSURE TESTING A NEW CL2 LOADING LINE PRIOR TO RETURNING IT TO SERVICE, A DEFECTIVE ANGLE VALVE WAS FOUND NOT FULLY CLOSED. CL2 FROM EQUALIZER SYSTEM USED TO TEST THHE LINE ESCAPED THRU VLVE	1. SOP TO BE CHANGED TO DOUBLE CHECK ALL VALVES PRIOR TO TESTING.
12/22/89	HCL L 52 LBS.	B/ VCM 11	TUBULAR GLASS S/G ON ATM. SCRUBBER FROZE AND BROKE, SPILLING HCL TO GROUND. SPILL DRAINED TO DITCH FLOWING TO OUTFALL 401. DUE TO FLOW OF FREEZE PREC. WATER, SPILL REACHED 401 BEFORE IT COULD BE DAMMED.	1. IMMEDIATELY INITIATE A POLICY TO KEEP SIGHT GLASS ISOLATED EXCEPT WHEN CONFIRMING A LEVEL. 2. INSTALL CONTAINMENT PAD AROUND BASE OF SCRUBBER (BY 4/89)
12/23/89	VC G 15 LBS.	★ SHIPPING/ DOCKS	WHILE LOADING VINYL ONTO A BARGE, THE BLEED ON THE LOADING LINE CRACKED RELEASING VINYL. FREEZING WEATHER IS SUSPECTED TO HAVE CONTRIBUTED TO THIS FAILURE.	1. PERFORM MORE THOROUGH VISUAL INSPECTION OF ALL VALVES AND CONNECTIONS PRIOR TO LOADING.
12/23/89	NAOH L 14917 LBS	C/A /'A'CAUSTIC	CLEAR LINE FROZE DUE TO COLD WEATHER. RECIRC. PUMP TRIPPED CAUSING TK TO O/F. NAOH TITRATOR FROZE. NO ALARM WAS RECEIVED IN CONTROL ROOM. PH VIOLATION OCCURRED. (MP)	1. CLEAR AND CLOUDY TANKS O/F LINES TO BE LINE MOLED. 2. INSTALL HIGH LEVEL ALARMS ON #7 CLEAR AND CLOUDY TANKS.

SL 088567

QUARTERLY UPDATE
SPILLS/RELEASES CORRECTIVE ACTION ITEMS

DATE	MATERIAL/AMOUNT	PLANT / AREA	DESCRIPTION OF RELEASE	CORRECTIVE MEASURES IN PROGRESS
12/27/89	NAOH L 577 LBS.	C/A/ 'A' CAUSTIC	THE UNDERGROUND CELL LIQUOR TRANSFER HDR FROM 'A' CAUSTIC TO PLANT B FAILED. SPILL CAME TO SURFACE AND INTO STORMWATER RUN-OFF SEWER EXITING AT 004 OUTFALL. FREEZE DAMAGE DID NOT ALLOW PH NEUTR. TO WORK.	1. DET FAILURE MECHANISM OF CELL LIQUOR TRANSFER HEADER. DEVELOP ACTION PLAN TO PREVENT FUTURE SPILLS FROM LINE. 2. INST MANUAL ACID BYPASS VALVE AT 004. 3. CHECK OPERATION OF AUTO VLVS 1/SHIFT.
12/29/89	CL2 G 3 LBS.	C/A / NG CELL	THE HG CELL CIRCUIT WAS ENERGIZED TO WARM UP PRIOR TO STARTUP. NEUTRALIZER WAS HANDLING CL2 BEING SENT TO IT, UNTIL A SWING IN THE CONTROLLER OCCURRED. A SMALL CLOUD WAS EMITTED FROM THE STACK.	1. AN SOP WILL BE IMPLEMENTED TO PRESTRENGTHEN THE CAUSTIC CONTENT OF THE RECIRCULATED HYPO IN THE NEUTRALIZER.