

SOP-EDC-OHC-VC-LT/STG
WRITTEN BY:RLD
DATE:2/23/90
APPROVED BY: DKP
DATE: 10/15/91

CONFIDENTIAL:
Subject to Protective Order
of 14th Judicial District Court

SOP # 5601-021.SOP
(RED TELEPHONE PROCEDURES)

RED TELEPHONE OPERATING PROCEDURE

Red Telephones are located in all major control rooms and shift supervision offices. This system is a means by which operating areas can exchange information concerning emergencies and operating changes on a group basis. The Lake Charles Complex is divided into four (4) alerting groups. Some locations are included in more than one group. The Groups and their Master Numbers are as follows:

Group 1 <u>Master # 3101</u>	Group 2 <u>Master # 3102</u>	Group 3 <u>Master # 3103</u>
Liquefaction	EDC	Chlorine "C"
Cell Bridge "A"	Per-Tri	Caustic "C"
Caustic "A"	EC-HCL	Powerhouse "C"
PH "A" Switchboard	Shift Supervisor "B"	PH "A" Switchboard
PH "A" Boiler Board	Liquefaction	PH "A" Boiler Board
Riverside	Cell Bridge "A"	Riverside
Powerhouse "C"	Shift Superintendent	EDC
Shift Supervisor "A"	Waste Treatment	Liquefaction
Shift Superintendent	PH "A" Switchboard	Shift Supervisor "C"
Mercury Cell	PH "A" Boiler Board	Shift Superintendent
Power Shift Supervisor	Riverside	Silica Furnace
North Liquefaction	Powerhouse "C"	Power Shift Supervisor
	Silica Furnace	Silica Dryer
	Triethane II	North Liquefaction
	Power Shift Supervisor	
	Silica Dryer	
	North Liquefaction	
	VCM II	

SL 003543

The Red Telephone System includes the following at each location:

1. A Red Telephone with two telephone lines (a private line and an alerting line).
2. A white exclusion key on the Red Telephone switch hook.
3. A push to talk button on the Red Telephone hand set.
4. Loud speakers and/or head sets.

A Group Alerting call is made as follows. The originator goes to the Red Telephone and picks up the hand set (no dial tone is present). He should lift the white exclusion key on the switch hook (dial tone is

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RED TELEPHONE OPERATING PROCEDURE

Red Telephones are located in all major control rooms and shift supervision offices. This system is a means by which operating areas can exchange information concerning emergencies and operating changes on a group basis. The Lake Charles Complex is divided into four (4) alerting groups. Some locations are included in more than one group. The Groups and their Master Numbers are as follows:

Group 0
Master Number 3100
All Locations

Group 1
Master Number: 3101

Liquefaction
Cell Bridge 'A'
Caustic 'A'
PH 'A' Switchboard
PH 'A' Boiler Board
Riverside
Powerhouse 'C'
Shift Supervisor 'A'
Shift Superintendent
Mercury Cell
Power Shift Supervisor
North Liquefaction

Group 2
Master Number: 3102

EDC
Per-Tri
EC-VC-HC1
Shift Supervisor 'B'
Liquefaction
Cell Bridge 'A'
Shift Superintendent
OHC
PH 'A' Switchboard
PH 'A' Boiler Board
Riverside
Powerhouse 'C'
Silica Furnace
Triethane II - OHC II
Power Shift Supervisor
Silica Dryer
North Liquefaction
VC II

Group 3
Master Number: 3103

Chlorine Control Room 'C'
Caustic Control Room 'C'
Powerhouse 'C'
PH 'A' Switchboard
PH 'A' Boiler Board
Riverside
EDC
Liquefaction
Shift Supervisor 'C'
Shift Superintendent
Silica Furnace
Power Shift Supervisor
Silica Dryer
North Liquefaction

SL 003544

The Red Telephone System includes the following at each location:

1. A Red Telephone with two telephone lines (a private line and an alerting line).
2. A white exclusion key on the Red Telephone switch hook.
3. A push to talk button on the Red Telephone hand set.
4. Loud speakers and/or head sets.

A Group Alerting call is made as follows. The originator goes to the red telephone and picks up the hand set. (No dial tone is present.) He should lift the white exclusion key on the switch hook (dial tone is now present). He dials the alert code for the desired group (say 3103 for Group 3). The Group Alert is now activated. Automatic cut-thru at other stations in the group will engage the loud speakers. The originator can immediately begin to describe the alert and be heard at the various stations over the loud speakers. The alerted station users can reply only by using the push-to-talk on their hand set. Note: the white exclusion key DOES NOT have to be lifted at the alerted stations. The originator alone must do this. Care must be exercised by the originator,

however, not to depress the white exclusion key (manually or by hanging up the hand set) as this will terminate the alert.

Station to station calls (within the Red Phone System using the private line) can be made without blocking the alerting paths. The originator uses the same method described above in making a Group Alert, except a station number is dialed instead of an alert. Automatic cut-thru does not occur at the receiving station. The red phone will continue to ring until the receiving station picks up the hand set and lifts the white exclusion key. The push-to-talk feature is still required. Should an alert occur while two parties are using the private line, they should immediately hang up and listen for the alert message.

The red phones are tied to an "Emergency Power" source in each control room. Loss of this power source will not prohibit the receiving of an alert but will prohibit the initiating of an alert. A receiving station will hear the phone ring once and will have to pick up the hand set to communicate as automatic cut-thru to the loud speakers will not occur.

The station (private line) numbers are as follows:

Liquefaction	3110	EC-VC-HC1	3122
Cell Bridge 'A'	3111	Shift Supervisor 'B'	3123
Caustic 'A'	3112	OHC	3124
PH 'A' Switchboard	3113	Silica Furnace	3134
PH 'A' Boiler Board	3114	Cl ₂ Control Room 'C'	3130
Riverside	3115	Caustic Control Room 'C'	3131
Powerhouse 'C'	3132	Shift Supervisor 'C'	3133
Shift Supervisor 'A'	3116	Triethane II - OHC II	3125
Shift Superintendent	3117	Power Shift Supervisor	3135
Mercury Cell	3118	Silica Pigments Dryer	3126
EDC	3120	North Liquefaction	3127
Per-Tri	3121	VC II	3128

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BHM/h1

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WRITTEN BY: JAM
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DATE: 01/13/92

SOP 5601-029.SOP
FOR EMERGENCIES IN UNITS OTHER THAN VCM

CHECK	ACTION STEPS (Capital letters) and Comments (Small letters)
_____	1. IN THE EVENT OF AN EMERGENCY IN ANOTHER UNIT WITHIN THE LAKE CHARLES COMPLEX: A. Emergencies are described as: a. Fire, Explosion, Vapor release B. Try to keep the VCM II unit operating unless loss of feeds, air, steam, power, etc. dictate otherwise. a. It takes less effort and manpower to keep the plant operating than it does to shut down.
_____	2. OPERATORS SHOULD REMAIN AT THEIR JOBS UNLESS REQUESTED BY SHIFT SUPERVISION OR THE DISASTER COORDINATOR TO AID IN THE EMERGENCY, OR UNLESS THE EMERGENCY REQUIRES A TOTAL PLANT EVACUATION..
_____	3. ISOLATE ANY LINES GOING TO OR FROM THE AFFECTED UNIT AS NECESSARY.
_____	4. FOR A MAJOR GAS RELEASE IN ANOTHER UNIT, UNLESS THE PROBLEM IS VERY SEVERE, EVACUATION OF THE VCM II PLANT SHOULD NOT BE NECESSARY.
_____	5. SHUT DOWN THE CONTROL ROOM AIR INTAKE AND USE THE EMERGENCY BREATHING AIR SYSTEM.
_____	6. IF EVACUATION IS REQUIRED, FOLLOW THOSE STEPS (AS APPLICABLE) AS GIVEN IN THE PROCEDURE FOR MAJOR BREAK, GAS LEAK, OR EXPLOSION.
_____	7. MAKE A HEAD COUNT.

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WRITTEN BY: JAM
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SOP # 5601-032.SOP
FIRE

CHECK	ACTION STEPS (Capital letters) and Comments (Small letters)
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IN THE EVENT OF A FIRE, THE SIZE OF THE FIRE WILL HAVE A CONSIDERABLE EFFECT ON THE ACTION TO BE TAKEN. IN ANY FIRE SITUATION, NOTIFY THE FIRE CHIEF. THE KEY TO MINIMIZING FIRE LOSSES IS TO REACT QUICKLY.

___ 1. SMALL FIRES

- A. Trash, oil, motor, electrical, or pump seal fires should be extinguished immediately. Notify the Guard office or shift safety coordinator that a fire occurred.

___ 2. LARGE FIRES

In general, larger fires should be cooled down with water and allowed to burn out by consuming all available fuel. If the fire is put out prior to isolating the fuel source, the flammable vapors could spread and re-ignite, causing further damage and possibly injury to personnel.

- ___ A. Activate the VCM II evacuation alarm.
- ___ B. Set off the appropriate sprinkler system if it hasn't already tripped.
- ___ C. Turn on monitor nozzles as necessary to cool structures and adjacent equipment.
- ___ D. Report the fire to the guards.
- ___ E. Account for all unit personnel.
- ___ F. Alert other units via the red phone.
- ___ G. Put on scott air packs or emergency escape masks.
- ___ H. Isolate the equipment or section of the plant.
- ___ I. Secure and control the plant.
- ___ J. The lead operators should be responsible to make contact with the emergency squad, direct them to the fire, and apprise them of the general situation.

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3. VERY LARGE FIRES

- _____ A. Shut down the cracking furnaces, the LP-EDC reactor, and the OHC reactors and the incinerator.
- _____ B. Block critical isolation valves and steam into the plant.
- _____ C. Once steam has been blocked, shut down as many air-cooled exchanger fans as possible.
 - a. It may be necessary to shut down power to the plant to accomplish this.
 - b. Insure that power is not required for other reasons before tripping it off
- _____ E. The lead operators should be responsible to make contact with the emergency squad, direct them to the fire, and apprise them of the general situation.
- _____ F. Lead operator should also make a head count.

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SOP 5601-033.SOP
 MINOR SPILL OR LEAK

CHECK	ACTION STEPS (Capital letters) and Comments (Small letters)
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MAKE IMMEDIATE ASSESSMENT OF THE SITUATION.

1. ELIMINATE OR SHUT DOWN ANY POSSIBLE IGNITION SOURCE.

- A. This may require evacuation of maintenance personnel and road way lights to be turned on. Turn on unit siren.
- B. Check wind direction for possible shut-down of open flame sources, such as crackers, dowtherm furnace, and/or incinerator.
 - a. If cracking furnaces are shut down this may require one or both OHC reactors to shut down.
 - b. Notify other operations control rooms via red phone if unit shut down is required.
- C. Check ignition source permits and insure that all welding machines, air compressors, vehicles, and other possible ignition sources are shut down as necessary.

2. ACTIVATE DELUGE IF NECESSARY.

- A. Notify guards of fire water use.

3. SHUT DOWN CONTROL ROOM AIR BLOWER IF NECESSARY

4. BYPASS AND ISOLATE THE LEAK SOURCE.

- A. Put on appropriate respiratory equipment.
- B. If equipment can be bypassed take it out of service.
- C. If equipment isolation requires shut down, follow SOP for shutting down that section.

5. CONTAIN THE SPILL

- A. Build a dike around spill or divert it to process sewer.
- B. Block the ditch isolation valve SW of the furnaces if necessary.

6. NOTIFY SHIFT SUPERINTENDENT AS SOON AS POSSIBLE

- A. Give superintendent all pertinent information such as leak location, size of spill, type of material spilled, and time of spill so that he can report the spill in a proper and timely fashion as required by the DEQ and the EPA. Leaks greater than RQ amounts must be reported to the DEQ within 15 minutes.

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WRITTEN BY: JAM/CF

DATE: 4/25/88

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DATE: 01/13/92

SOP # 5601-034.SOP
MAJOR BREAK, GAS LEAK, OR EXPLOSION

CHECK	ACTION STEPS (Capital letters) and Comments (Small letters)
___	1. ACTIVATE THE VCM II PLANT EVACUATION ALARM. A. This automatically activates the roadway lights.
___	2. SHUT OFF THE CONTROL ROOM AIR INTAKE.
___	3. SHUT DOWN THE CRACKING FURNACES, DOWTHERM HEATER, AND INCINERATOR AS WIND DIRECTION AND VELOCITY DICTATE TO PREVENT THEM FROM BEING AN IGNITION SOURCE.
___	4. TRIP APPROPRIATE SPRINKLER SYSTEM IF NOT ALREADY TRIPPED. A. Do not trip more systems than are necessary. The fire water system can support only a limited number of deluge systems simultaneously at design capacities.
___	5. USE RED PHONE TO NOTIFY OTHER UNITS, GUARDS, AND SHIFT SUPERVISION OF EMERGENCY SITUATION. A. Request fire or first aid assistance as needed (2700).
___	6. THE LEAD OPERATORS ARE RESPONSIBLE FOR MAKING A "HEAD COUNT".
___	7. PUT ON APPROPRIATE RESPIRATORY PROTECTION.
___	8. SECURE, STABILIZE, AND ISOLATE THE AFFECTED AREAS OF THE PLANT IF POSSIBLE. A. An evaluation should be made with supervision about corrective action to be taken. B. Isolation valves to be considered are: chlorine, ethylene, oxygen, methane, EDC, HCL, and VCM transfer lines. C. Other lines that should be considered are air, nitrogen, and water to avoid bleeding down these utilities and affecting other units. D. Shutting down electrical power to the plant can reduce the amount of flammables being pumped out through damaged or ruptured lines. E. Ensure that power is not needed for other reasons, such as pumping flammables out of the area, before shutting down.

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- ____ 9. TRIP THE OHC AND LP-EDC SHUT-DOWN SYSTEMS (IF THEY ARE NOT ALREADY DOWN).
- ____ 10. BLOCK STEAM TO THE PLANT TO REDUCE FLAMMABLE VAPOR GENERATION.
- ____ 11. THE LEAD OPERATOR SHOULD BE RESPONSIBLE TO MAKE CONTACT WITH THE EMERGENCY SQUAD, DIRECT THEM TO THE AFFECTED AREA, AND APPRISE THEM OF THE GENERAL SITUATION.
- ____ 12. LEAVE THE AREA ONLY AS A LAST RESORT.
- ____ 13. USE STANDARD EPA/DEQ REPORTING PROCEDURES. The shift superintendent must report amounts exceeding the RQ to the DEQ within 15 minutes.

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SOP # 5601-035.SOP
RESPONSE TO HAZARDOUS CONDITIONS

CHECK	ACTION STEPS (Capital letters) and Comments (Small letters)
_____	1. IN THE EVENT OF A MAJOR CATASTROPHE, SELF-PROTECTION AND PROTECTION OF YOUR CO-WORKERS SHOULD BE YOUR PRIMARY CONSIDERATON.
_____	2. IGNITION SOURCES SHOULD BE ELIMINATED. A. Shut down units as necessary
_____	3. THE EVACUATION ALARM, RED PHONE AND ROADWAY STROBE LIGHTS SHOULD BE USED AS NECESSARY TO WARN OTHERS OF THE SITUATION. CALL 2700 TO REPORT THE EMERGENCY AND MOBILIZE THE EMERGENCY SQUAD.
_____	4. LEAD OPERATORS ARE RESPONSIBLE TO GET A "HEAD" COUNT".
_____	5. THE APPROPRIATE DELUGE SYSTEMS SHOULD BE ACTIVATED. PUTTING ON UNNECESSARY SYSTEMS LOWERS AVAILABLE FIREWATER PRESSURE.
_____	6. CONTROL ROOM OUTSIDE AIR BLOWER SHOULD BE SHUT DOWN.
_____	7. APPROPRIATE RESPIRATORY PROTECTION SHOULD BE PUT ON.
_____	8. SECURE THE PLANT TO MINIMIZE THE HAZARD POTENTIAL.
_____	9. LEAVE THE CONTROL ROOM BUILDING ONLY AS A LAST RESORT. A. The control building is designed to be explosion-resistant, and is equipped with an emergency breathing air system.
_____	10. RESPONSE TO AN EMERGENCY IN THE PLANT SHOULD BE LIMITED TO THE OPERATOR(S) FOR THAT AREA AND THE LEAD OPERATOR AND/OR THE AUXILIARY OPERATOR, IF NECESSARY. A. If everyone left the control room to respond to the situation, or just out of curiosity, and were overcome by fumes, for example, there would be no one left to respond to alarms and secure the plant from the control room.
_____	11. RELAY WHATEVER INFORMATION CONCERNING ENVIRONMENTAL IMPACT THAT IS AVAILABLE, TO THE SHIFT SUPERINTENDENT ASAP. RQ releases must be reported to the DEQ within 15 minutes.

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WRITTEN BY: JAM
APPROVED BY: MJF
DATE: 7/92

5601-049.SOP
LOSS OF WELL WATER

CHECK	ACTION STEPS (Capital letters) and Comments (Small letters)
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SHOULD IT BECOME NECESSARY TO SHUTDOWN THE WELL WATER SYSTEM IN VCM-11.
TAKE THE FOLLOWING ACTION.

- _____ 1. ISOLATE WELL WATER HEADER AT THE WEST BATTERY LIMITS.
- _____ 2. OPEN WELL WATER TO SABINE WATER CROSSOVER VALVE IN PIPE RACK
NORTH OF THE INCINERATOR.

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WRITTEN BY: JAM
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5601-050.SOP
LOSS OF INSTRUMENT AIR

CHECK	ACTION STEPS (Capital letters) and Comments (Small letters)
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ASSUMING LOSS WITH TIME TO REACT.

- _____ 1. SWITCH OVER FROM INSTRUMENT AIR TO NITROGEN (SEE SOP 5601-001.SOP).

ASSUMING LOSS WITH NO TIME TO REACT OR A RUPTURED AIR HEADER

- _____ 1. MAINTAIN ADEQUATE NITROGEN FLUIDIZATION TO THE REACTORS.
- _____ A. Reactors will shut down as control valves move to "fail-safe" position as air pressure decreases.
- _____ 2. LEAVE COOLING TOWER PUMPS AND FANS ON UNTIL PLANT IS SECURED.
- _____ 3. BLOCK STEAM TO USERS.
- _____ 4. PLACE CONTROLLERS ON MANUAL AND CLOSE AS NEEDED, CLOSE BLOCK VALVES.
- _____ 5. SHUT DOWN AND BLOCK PUMPS AS NEEDED.
- _____ 6. SWITCH DH STILL PRODUCTION INTO DH FEED TANK.
- _____ 7. FOLLOW INDIVIDUAL SYSTEM SHUT-DOWN AND PURGE PROCEDURES.
- _____ 8. BLOCK ANY REWORK GOING TO THE INTERMEDIATE CRUDE DRUM.

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SOP-EDC-OHC
WRITTEN BY:RLD
DATE:3/2/90
APPROVED BY:DKP
DATE:07/29/92

SOP # 5601-024.SOP
(EMERGENCY SHUTDOWN OF CELL LIQUOR TO "B")

OPERATOR'S NAME: _____ DATE _____

CHECK	ACTION STEPS (Capital letters) and Comments (Small letters)
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It has been assumed that the failure of the Cell liquor to "B" line will not be a complete rupture. This means that flow still exists in the header to Plant "B", but the failure is such that the line needs to be taken out of service as soon as possible.

Everybody concerned needs to realize that the normal operating strength of Waste Caustic is 90-100 GPL. In order to supply all the users, in Plant "B", with Waste Caustic instead of Cell Liquor, the Waste Caustic strength will have to be raised to 150 GPL (minimum). The basic warning is that if all the Plant "B" users switch to Waste Caustic without allowing Caustic "A" to get the strength up, it is a good chance that everybody in Plant "B" will shut down because the capacity of the supply system is such that all users cannot be supplied adequately at the lower strength.

VALVE DESIGNATIONS

- VALVE 1 - connects the VCM II Cell Liquor line to the Waste Caustic Header
- VALVE 2 - block valve on the VCM II Cell Liquor line at the Cell Liquor Header
- VALVE 3 & 4 - block valves on the jumper line between the VCM II and TRI II Cell Liquor branch lines of the header
- VALVE 5 - block valve on the TRI II Cell Liquor line at the Cell Liquor Header.
- VALVE 6 - connects the VDCM Cell Liquor line to the Waste Caustic Header.
- VALVE 7 - block valve on the VDCM Cell Liquor line at the Cell Liquor Header.
- VALVE 8 - 2" valve for blowing out the Cell Liquor Header.
- VALVE 9 - block valve on WTU Cell Liquor line at the Cell Liquor Header

SEE ATTACHED DRAWING FOR VALVE LOCATIONS

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- _____ 1. JOB SAFETY INSTRUCTIONS REVIEWED.
- _____ 2. INSURE THAT YOU ARE WEARING PROPER SAFETY EQUIPMENT: HARD HAT, SAFETY GLASSES OR GOGGLES, SAFETY SHOES, ESCAPE RESPIRATOR.
- _____ 3. THE SHIFT SUPERINTENDENT WILL COORDINATE ALL ACTIVITIES. HE SHOULD FIRST NOTIFY CAUSTIC "A" LEAD OPERATOR (2558) TO PREPARE TO TAKE THE CELL LIQUOR TO "B" HEADER OUT OF SERVICE. HE SHOULD THEN NOTIFY VCM-II LEAD OPERATOR (2770)

TO GET OFF CELL LIQUOR AND START USING WASTE CAUSTIC. THE VCM-II LEAD OPERATOR SHOULD CONTACT THE WTU LEAD OPERATOR (2677) AND GET HIM TO OPEN VALVE 1. THE WTU LEAD OPERATOR SHOULD NOTIFY THE VCM-II LEAD OPERATOR WHEN VALVE 1 IS OPEN. THE VCM-II LEAD OPERATOR SHOULD THEN NOTIFY THE TRI-II LEAD OPERATOR (2646) TO CLOSE AND TAG VALVE 2. ONCE VALVE 2 IS CLOSED THE TRI-II LEAD OPERATOR SHOULD NOTIFY THE VCM-II LEAD OPERATOR THAT VCM-II IS NOW ON WASTE CAUSTIC.

4. CAUSTIC "A" SHOULD DO EVERYTHING NECESSARY TO START GETTING TKS. 15 & 17 STRENGTH UP TO 150 GPL (MINIMUM). AS LONG AS THE CELL LIQUOR TO "B" LONE IS OUT OF SERVICE, CAUSTIC "A" SHOULD KEEP THE WASTE CAUSTIC STRENGTH BETWEEN 150-175 GPL. TO GET TKS. UP TO STRENGTH, CAUSTIC "A" SHOULD:
 - A. Remove all weak streams from 15 & 17 and put to the cell liquor tks..
 - B. Leave only streams above 140 gpl in 15 & 17 and start dumping 50% caustic from filters into 15 & 17.
 - C. Start sampling Waste Caustic every 30 minutes. Once the Waste Caustic strength gets above 150 gpl, the operator can go back to sampling every 2 hours.
5. CAUSTIC "A" WILL NOTIFY THE TRI-II LEAD OPERATOR (2646) AS SOON AS THE WASTE CAUSTIC STRENGTH IS ABOVE 120 GPL. TRI-II SHOULD GET OFF CELL LIQUOR AND GET ON WASTE CAUSTIC. OPEN VALVE 3 AND VALVE 4 THEN CLOSE AND TAG VALVE 5.
6. TRI-II OPERATIONS SHOULD SAMPLE THEIR CAUSTIC STORAGE TANK EVERY HOUR UNTIL THE WASTE CAUSTIC FEED CONCENTRATION COMING TO THE UNIT HAS BEEN STABILIZED. CAUSTIC "A" CAN BE CONTACTED (2558) PERIODICALLY TO SEE WHAT THE WASTE CAUSTIC FEED CONCENTRATION IS AND YOU MAY ALSO REQUEST NOTIFICATION OF ANY DRASTIC CONCENTRATION CHANGES.
 - A. It will be important to closely monitor tank levels, flows, and pH's in the cell liquor and caustic systems in the unit. The waste caustic strength will vary, at least for a while, and care must be taken to keep the caustic strong enough to destroy all the chloral in the system and keep the pH up high enough in the steel lines to protect them from excessive corrosion, while also keeping the concentration low enough to avoid inverting the aqueous and organic phases in th Chloral Treatment Phase Separator (C.T. P/S). Keep the strength of the caustic going to the C.T. P/S below 8%. If the waste caustic is not strong enough to allow the unit to operate normally, notify the Shift Supervisor and ask him to have Caustic "A" increase the strength of the waste caustic.
7. CAUSTIC "A" WILL NOTIFY THE VDCM LEAD OPERATOR AS SOON AS THE WASTE CAUSTIC STRENGTH IS ABOVE 140 GPL. VDCM SHOULD GET OFF CELL LIQUOR AND GET ON WASTE CAUSTIC. OPEN VALVE 6 THEN CLOSE AND TAG VALVE 7.
8. AS SOON AS VDCM HAS SWITCHED OVER, THE VDCM LEAD OPERATOR SHOULD NOTIFY THE PLANT "B" SHIFT SUPERVISOR THAT ALL USERS ARE OFF OF CELL LIQUOR.

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A. It should be noted that VDCM has the ability to swing their rate at will, so if the waste caustic supply is not sufficient, VDCM can cut load or temporarily come down until Caustic "A" can get the strength up high enough to supply all users.

- ____ 9. THE PLANT "B" SHIFT SUPERVISOR SHOULD CHECK VALVES 2, 5, 7, AND 9 TO MAKE SURE THEY ARE CLOSED AND TAGGED.

A. This is critical because if the Cell Liquor header is not isolated, Weak Caustic will be pumped back into the Cell Liquor header.

- ____ 10. ONCE THE "B" SHIFT SUPERVISOR HAS MADE SURE THE VALVES ARE CLOSED AND TAGGED, HE SHOULD NOTIFY THE SHIFT SUPERINTENDENT THAT ALL USERS ARE OFF CELL LIQUOR. THE SHIFT SUPERINTENDENT SHOULD THEN TELL CAUSTIC "A" TO SHUT DOWN THE CELL LIQUOR TO "B" PUMPS.

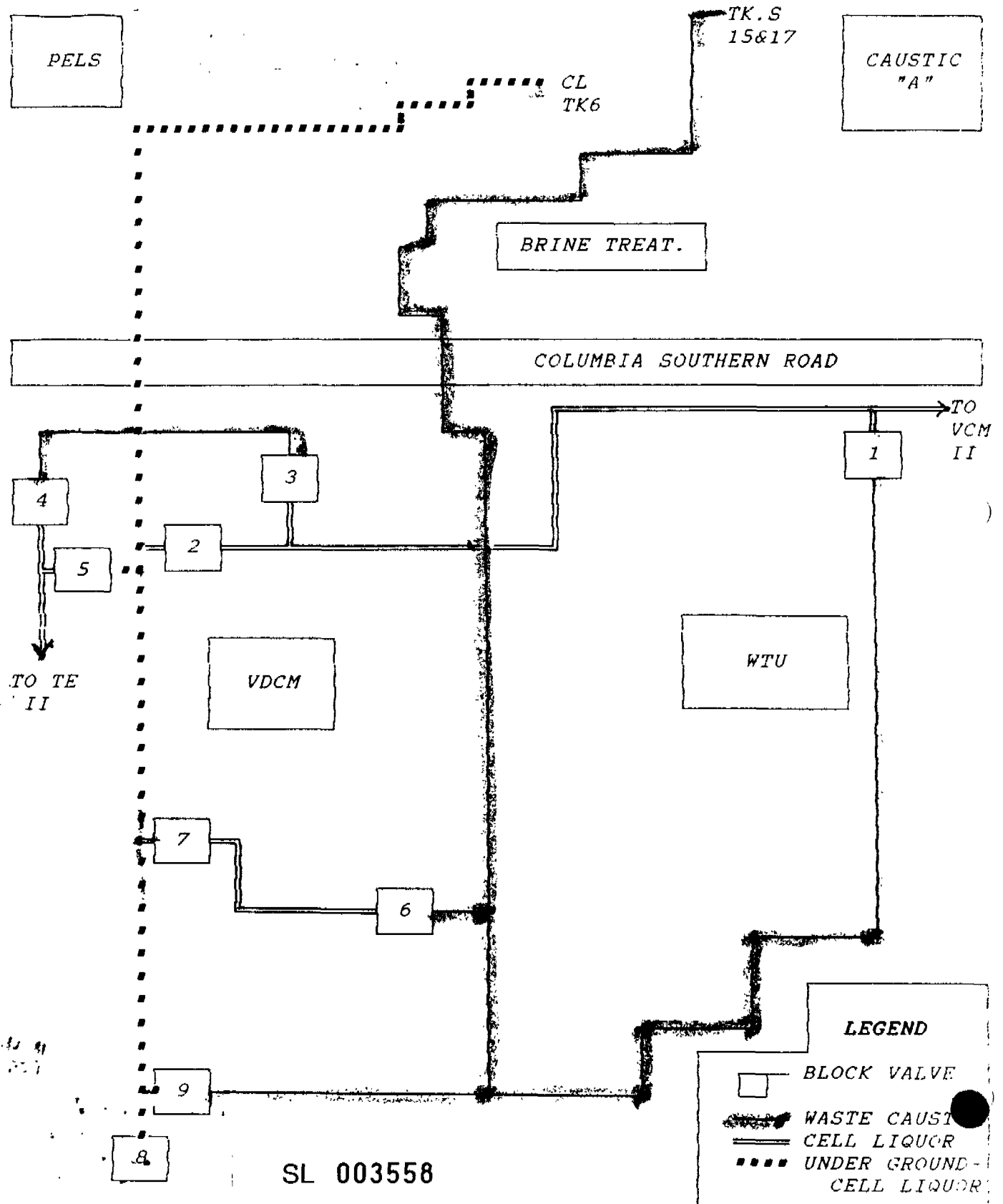
- ____ 11. THE SHIFT SUPERINTENDENT SHOULD THE GET A 100 PSI, 600 CFM (MINIMUM) PORTABLE AIR COMPRESSOR AND HAVE IT HOOKED ON VALVE 8.

- ____ 12. AFTER COMPRESSOR IS HOOKED UP, THE SHIFT SUPERINTENDENT SHOULD THEN GET THE PLANT "A" AND "B" SHIFT SUPERVISORS TO COORDINATE BLOWING THE CELL LIQUOR TO "B" HEADER OUT (BACK INTO CELL LIQUOR TANK 6). AFTER BLOWING THE HEADER OUT, BLEED REMAINING AIR PRESSURE OFF THE HEADER. THEN TAG AND MAINTENANCE WORK CAN PROCEED.

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ATTACHMENT



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SOP-EDC-OHC-VC-L/T STG

APPROVED BY: DKP

REVISED: MJF

DATE: 04/92

5601-001.SOP
INSTRUMENT AIR UPSETS

OPERATOR'S NAME: _____ DATE: _____

CHECK	ACTION STEPS (Capital letters) and Comments (Small letters)
_____	1. JOB SAFETY INSTRUCTIONS REVIEWED.
_____	2. INSURE THAT YOU ARE WEARING PROPER SAFETY EQUIPMENT: SAFETY GLASSES OR GOGGLES, HARD HAT, HEARING PROTECTION, AND STEEL-TOE SHOES.
_____	A. ACTIVATE THE VCM II SIREN Leave the siren on for 5 minutes to get Construction and Maintenance personnel out of the area. After the air system is stable and you advise Construction/Maintenance of the situation, they can return to work. No work inside vessels, furnace flame management control houses, or analyzer sheds will be allowed while we are on nitrogen. Avoid use of plant air or nitrogen during this time.
_____	B. DOUBLE BLOCK AND BLEED THE AIR HEADER FROM PLANT "B" AFTER THE NITROGEN IS PUT IN.
_____	C. LOCK AND TAG OUT THE DOORS TO ANALYZER SHEDS AND FLAME MANAGEMENT CONTROL HOUSES TO PREVENT ENTRY. All vessel entry permits are void while on nitrogen.
_____	D. CHECK THE AREA FOR PERSONNEL IN VESSELS, CONFINED AREAS TO ENSURE THAT NO ONE IS POSSIBLY TRAPPED IN DANGER OF ASPHYXIATION.
_____	E. STAY ON NITROGEN ONLY AS LONG AS NECESSARY.
_____	F. VESSELS, ANALYZER SHEDS, FLAME MANAGEMENT CONTROL HOUSES, MUST BE CHECKED FOR OXYGEN CONTENT PRIOR TO REMOVAL OF TAGS OR RENEWAL OF VESSEL ENTRY PERMITS.
_____	G. INFORM ALL PERSONNEL IN THE AREA WHEN WE ARE OFF NITROGEN.
_____	H. DOUBLE BLOCK AND BLEED THE NITROGEN HEADER.

SL 003559

CONFIDENTIAL:
Subject to Protective Order
of 14th Judicial District Court
No. 91-1145

SOP-EDC-OHC-VC-L/T STG
WRITTEN BY: JAM
APPROVED BY: MJF
DATE: 05/05/92

5601-018.SOP
BATTERY LIMITS LINES AND ISOLATION VALVES

A. ISOLATION VALVES FOR THE LINES LISTED BELOW ARE NOT ALWAYS PRESENT AT BATTERY LIMITS. YOU MAY HAVE TO TRACE THE LINE INTO THE UNIT OR BACK DOWN THE PIPERACK TO LOCATE THE NEAREST VALVE.

B. LINES LOCATED AT THE EAST BATTERY LIMITS. NORTH TO SOUTH. ARE:

LOWER PIPERACK

- | | |
|----------------------------|---|
| 1. 6" VCM to/from docks | 8. 2" Hvy's still bottoms to WTU |
| 2. 4" EDC from B-1 | 9. 3" chlorine sniff header |
| 3. 3" cell liquor | 10. 2" secondary scrubber H ₂ O to WTU |
| 4. 6" ethylene | 11. 8" atmospheric scrubber H ₂ O to WTU |
| 5. 3" abandon formate hdr | 12. 8" primary scrubber H ₂ O to WTU |
| 6. 6" oxygen | 13. 8" vents to WTU |
| 7. 2" wet EDC frm shipping | |

UPPER PIPERACK

14. 1-2" sabine water
15. 2" lights line to WTU
16. 6" ethylene from docks
17. 6" low pressure nitrogen
18. 2" high pressure nitrogen
19. 4" liquid chlorine
20. 3" formate transfer header (from SSPS to WTU)
21. 2" EDC line to/from TE-II (to tank farm or LS reboilers)
22. 2" VCM transfer header from TE-II

C. LINES LOCATED IN THE WEST BATTERY LIMITS PIPERACK JUST WEST OF #4 INCINERATOR (NORTH TO SOUTH) ARE: These lines are at head level.

1. 1-5# steam
2. 6" condensate header
3. 3" HCL header to the HCL absorbers
4. 8" HCL header to plant B
5. 6" VCM product transfer header
6. 3" VC sphere vents
7. 6" VCM alternate transfer header
8. 2" orange ethylene line from Westlake Polymers
9. 6" well water
10. 4" instrument air
11. 3" sanitary sewer
12. 1 1/2" nitrogen
13. chlorine to Kronos (insulated)
14. chlorine sniff header

D. THE NATURAL GAS SUPPLY HEADER ISOLATION VALVE IS LOCATED SOUTH OF THE VC FURNACES.

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