

DEPARTMENTAL CORRESPONDENCE

DATE: JULY 15, 1992SUBJECT: 1992 SAFETY AUDIT - STATUS OF REPAIRSTO: L. HUWE DEP'T: MAINTENANCE MANAGERCC: T. ALVARADO - MD - XC - BD - CC - AK - AA - JB - G. RICHARDFROM: J. DYKES *[Signature]* DEP'T: MAINTENANCE PLANNING

The Maintenance Planning Group is currently preparing AFE's for the following items (see attached memo):

- A) Cumulative AFE by MD (AFE estimate of \$437,000 submitted):
1. H2S monitors - replace (24) monitors (\$82,701)
 2. Repairs & inspections of all permanent lift devices (23) O/H hoists (\$10,423)
 3. Setup turbine over-speed trip testing program (\$46,020)
 4. Construct ramps over ground level piping (\$29,675)
 5. Sulfur Loading Rack personnel protection (\$2,675)
 6. Repairs to E/P Carpenter Shop - termites (\$3,580)
 7. Inspect/test wire rope & slings (\$21,795)
 8. Reset 12" prod. line on supports @ Alky (\$21,795)
 9. Platforms on Recycle Comps. @ #2 Ref. (\$5,990)
 10. Install platform on top of E/P Condensate Tk (\$3,905)
 11. Rpl. temporary pipe supports @ MTBE-BTX-SULF (\$37,795)
 12. Install adequate lighting @ E/P Weld Shop (\$7,935)
 13. Install adequate lighting @ W/P Weld Shop (\$7,195)
 14. Install adequate lighting @ Quintana Weld Shop (\$7,935)
 15. Install adequate lighting @ E/P Machine Shop (\$7,935)
 16. Install volatile hydrocarbon drains from vessels per Operations (\$20,000)
 17. Repair turbine driver for W/P Emergency Generator (\$19,130)
- B) Insulation repairs @ 52-53-55-71 Tanks - NRC submitted AFE to Management (AFE under review for justification).
- C) Repair leak on 71 Tank - Tank was externally inspected and Management is reviewing Indtech's report.

RAM 0002167

- D) Pressurization of Control Rooms - MD is investigating safety requirements and control room air intakes in preparation of writing an AFE.
- E) Barricade for Sulfur Pit - Maintenance completed installing walkways and barricades (J.O. #151860).
- F) Asbestos removal/sealing - MD has prepared bid package per Operations' lists, Contractors to submit bids 7-15-92 for review and bid tabulation. An AFE will be generated from bids.
- G) Testing of emergency generators & fire pumps - "Weaver Industrial" is currently testing this equipment on a routine basis.
- H) Inspection holes in Insulation - All future turnaround AFE's are to include money to make repairs.
- I) Work orders have been written to repair all discrepancies in the Maintenance Shops and Warehouse/Garage areas and repairs are in progress. Maintenance has completed (63) of (87) reported discrepancies (72.4%) - Of the remaining (24) safety discrepancies (9) are included in the \$437,000 Cumulative AFE which MD submitted.

Attached is an annotated copy of the (56) page "work list" outlining the required repairs and comments.

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attachments: '92 Safety Audit Discrepancy List

RAM 0002168

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	GENERAL - PLANT WIDE			
	Numerous Coastal product Material Safety Data Sheets (MSDS) are incorrect in that Benzene Personal Exposure level is shown as 10 ppm and not 1 ppm as required by standard (Aviation Gasoline shows the correct Benzene Pel.)	Arlen Tidemann- L. Wilcox	ASAP	MSDS's Have Been Updated & Distributed (7-1-92)
	Several Coastal product MSDS state complex mixture of aromatic. Where Benzene is present in concentrations in excess of 0.1 percent, which is highly probable in these products, the Benzene must be listed and the presence of a carcinogen noted. The listing of chemicals present in the mixture shown on the Coastal Aviation Gasoline MSDS is a good example of identifying the hazards.	Arlen Tidemann	ASAP	
	Nothing stated in MatCon written program about what laboratories are required to do to be in compliance with standard.	Arlen Tidemann/ Carlos Sternett	7/1/92	
	Several obsolete OSHA form 20 MSDS remain in active file of plant data sheets. (The form 20 does not provide for all the recommended hazard information currently required.)	Val Belcon	2/1/92	
	No routine fire fighting equipment inspections performed (fire extinguishers, foam systems, fire monitors, etc.)	Val Belcon	Set Up a Program 6/1/92	
	Preventative maintenance needed on emergency equipment to insure operability if needed. (Fire fighting equipment)	Val Belcon		

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	USE DATE	COMMENTS
	No routine testing of personnel emergency equipment to insure operability if needed. (Safety showers, gas with belts, etc.)	Val DeLeon Set up units responsible	6/1/92	Initial Rpas Have Been Completed.
	Safety meeting for hourly personnel met routinely held, but is planned for the future. Federal Training Guidelines.	Val DeLeon Monthly/Fiscal Year	1/10/92	MONTHLY SAFETY MTGS. ARE BEING HELD FOR MAINT. PERSONNEL (MAINT. SUPVS. GIVE MEETINGS)
	Develop a transportation emergency response plan to cover such things as lost trucks or 1878, 507, 2011/11/22, etc.	Val DeLeon / Carlos Stennett	8/1/92	
	National Fire Protection Association (NFPA) hazard identification signs should be posted on all tanks. These signs should be of sufficient size to permit observation by any response team coming into the plant during an emergency.	Denny Garcia / Val DeLeon (Procedures)	8/1/92	
	MISCELLANEOUS - PLANT WIDE			
	Underground fire water mains should be hydrostatically tested to insure the availability of sufficient water in the event of a fire. Reportedly, water leaks exist due to corrosion from a lack of cathodic protection which should also be installed on all underground pipelines (previously mentioned)	Val DeLeon Investigate	6/1/92	SAFETY TO PERFORM ANNUAL STATIC TESTS. A. Rpt'd. F/W Leaks @: 1. 110 Tk. (J.O.#131409) 2. 117-118 Tks. (J.O.#131410) 3. 334-735 Tks. (J.O.#131413) B. Rpt'd. F/W Leak @ 202 Tk.
	The members of the In-plant fire brigade should receive more frequent training. An annual training is provided, but should be conducted quarterly for each shift crew of operators and maintenance.	Val DeLeon Investigate	6/1/92	
	The responsibilities for maintenance of the plant's fire fighting equipment must be clearly understood by all. This includes fire extinguishers, fire monitors, hydrants, fire hoses, etc.	Val DeLeon Contractor Better monitoring Operators unit. Issue Instructions	5/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	The Safety Department has the responsibility for maintenance of all the many hydrants and fire monitors. The current staffing of this organization is insufficient to achieve this responsibility and the condition of much of this equipment has deteriorated (and is probably inoperable) as a result.	Vol Detcon	10/1/92	
	Even where plant safety policies have been established, they are not being enforced. Additional safety policies, procedures, and rules need to be established, but without proper enforcement from the top of the organization, they too will be ineffective.	Enforce dress code - Employees and Contractors.	6/1/92	1. Non-ex Council's
	Fire water hydrant flow-tests have not been conducted to determine if sufficient water is available, if needed.	Vol Detcon	10/1/92	
	Incident investigations should be conducted by a committee involving hourly, safety, maintenance and/or operations supervision, engineering, etc. Incidents such as fires, spills, near-misses, etc. should be investigated with a determination of cause, and what corrective action is to be taken to prevent a recurrence. A report to the Plant should then be distributed to inform others of what happened, so that they may determine if there is any applicability for corrective action in their areas to prevent a similar incident. Currently, only the Safety Supervisor conducts an investigation.	Vol Detcon	3/1/92	HazOp Group
	The Plant's automatic sprinkler systems are not tested annually, as they should be.	Vol Detcon	8/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	PLANT WIDE			
	Flare header: there are inadequate shutoff valves to allow removing relief valves for test and maintenance without potential exposure to a flammable gas release. Employees must be protected from flash fire while header is open.	Val DeLeon		
	Lock out - Tag Out a) Procedures are not developed for specific pieces of equipment or types of equipment. The SIS instruction permits developing procedures for complex plants for each unique job. This would require an isolation list along with the permit. b) Suggest a policy on the use of blinds or slip blinds... "use them where their use does not incur any more potential exposure than the maintenance job itself." c) Electrical safe work practices must be covered by lockout/tagout. d) Electrical training required for safe work practices not conducted. e) Training, retraining and certification for lockout / tagout not carried out. f) Good certified periodic inspections of lockout / tagout.	Val DeLeon	4/1/92	Generic Lock Out Procedure by Safety Sids
	Due to lack of designation of personnel roles, training has not been accomplished. 24 hour for first responder and 48 hour supervisor. After initial training 8 hour annual refresher training is also required.	Val DeLeon / Carlos Sternatt	4/1/92	
	Respiratory Program - Respirators are not periodically inspected and cleaned.	Val DeLeon	3/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DATE	COMMENTS
	Respirator Training - No initial or ongoing instruction in the use and care of respirators.	Vol DeLeon	3/1/92	
	GENERAL - PLANT WIDE			
	Nothing stated in Westcon written program about what laboratories are required to do to be in compliance with standard.	Arlen Tidmarsh/ Carlos Sternett	7/1/92	
	Since OSHA regards rail tank cars and tank trucks as "containers", a label should be included with each container of hazardous material shipped. This label can be included with the shipping papers or physically attached to the container.	Carlos Sternett	Reviewed by 3/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	GENERAL COMMENTS - WEST PLANT			
	The 18 hydrogen sulfide detectors-monitors are of very questionable value, since a number of them were observed to be in the alarm stage. Operator dependence upon these devices to warn of danger is not too great. Since hydrogen sulfide was detected in a number of locations, an improved system for monitoring should be made available to prevent personnel injury. (Example: Hydrogen sulfide concentration is extremely high at coke Elliot compressor, gas oil low pressure separator, gas oil compressors, etc.).	Vol Batson / Carlos Stennett Investigation needed.	3/31/92	Cum. AFE By MGH. (AFE ESTIMATE BEING REVIEWED, 4/10)
	Unit personnel need more refresher training in fire fighting especially those assigned to fire brigade.	Carlos Stennett	3/1/92	
	INSPECTION DEPARTMENT			
	Develop a procedure to insure that all tank dike water drains are maintained in the closed position unless actually draining water.	Carlos Stennett / Billy Bichman D. GARCIA	9/1/92	AFE 42113 (30% Complete)
	Evaluate all tank dikes to insure adequate size to contain a spill in the vent of a tank failure.	Carlos Stennett / Billy Bichman D. GARCIA AFE	9/1/92	AFE ESTIMATE OF \$246,500 SUBMITTED 3/23 AFE 42113

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	Develop a transportation emergency response plan to cover such things as lost travel or lost car, wallet, license, etc.	Carlos Sternett / Val DeLeon	8/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ISSUE	ACCOUNTABILITY	DUE DATE	COMMENTS
GENERAL				
	Hazard determination written procedures were not available at the plant and their location was not definitely known.	Corporate / Arlen Hickman / Val DeLeon	3/1/92	
	Plant procedure covering benzene discusses only the product and does not recognize the existence of benzene in any other refinery streams, both product and raw material. The benzene definition in 1910.1028 (j) (1) includes benzene contained in liquid mixtures and the benzene vapors released by these liquids. To be consistent with the OSHA standard, the use of the word benzene in plant procedures should follow this definition. Therefore, tanks containing benzene should be labeled with the required statement "CAUTION! CONTAINS BENZENE CANCER HAZARD". The requirements of the Hestem 1910.1200 standard for labeling of containers is also required to be posted in the workplace.	Corporate / Arlen Hickman / Val DeLeon	3/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	OIL MOVEMENT & STORAGE AREAS	Danny Garcia		
	Barge loading hoses are tested annually with records being maintained. This testing should be extended to cover all hoses used in the plant for 125% levels and full tank size. Frequency and type of test should be appropriate for whatever service the hose is to be used for. (Product transfers, tank truck loading / unloading, roll car loading / unloading, steam, water, air, nitrogen, etc.)	Danny Garcia	6/1/92	
	Provide railroad derricks at tank car loading/unloading racks and blue flags.	Danny Garcia	3/1/92	
	National Fire Protection Association (NFPA) hazard identification signs should be posted on all tanks. These signs should be of sufficient size to permit observation by any response team coming into the plant during an emergency.	Danny Garcia / Val Boleen	8/1/92	
	Develop a procedure to insure that disconnected valves near bottom of tanks are fitted with blind flanges (or other plugs) to prevent inadvertent opening and spillage.	Danny Garcia	9/1/92	
	Repair dangling insulation metal covers on asphalt tanks numbers 52, 53, 55, and 71 to prevent personal injury.	Danny Garcia - Determine if TK insulation is required issuing of AFE's	3/1/92	AFE BEING PREPARED BY XRC. 4/10 - ESTIMATE BEING REVISED TO RENEW DAMAGED INSUL. ONLY.
C	Institute routine checking of hydrocarbon surge in east plant flare to insure that a safe level is always maintained. Clean the existing sight glass to allow determination of level.	Garcia/Valther will maintain a positive hydrocarbon surge in the flare.		4/10 CLEANED & CHECKED DAILY BY PUMPING DEPT. Complete (4/10/92)
C	Maintenance of area is unsatisfactory and needs considerable attention.	Garcia	9/1/92	WORKING Complete (4/10)

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
<i>Q</i>	Pools of liquid hydrocarbons of unknown origin within tank dikes of tanks 333 and 334.	Garcla	3/1/92	<i>Complete</i>
	OIL MOVEMENTS AND STORAGE AREAS (ADDITIONAL ITEMS)			
	Asphalt tank leaking near base of tank. (Refer to previous comment concerning developing a plan for inspecting the structural integrity of storage tanks).	Garcla	6/1/92	Tank WAS EXTERNALLY INSPECTED, I.E. WRITTEN & SUBMITTED TO MANAGEMENT. <i>SEPARATE AFE</i>
<i>Q</i>	Many 55-gallon drums, both empty and full, of unknown materials located within storage tank dikes.	Garcla	6/1/92	<i>Complete</i>
	Sanitary operation of motor vehicles within dikes of storage tanks containing flammable materials provide an ignition source in the event of a spill.	Garcla	6/1/92	
<i>N/A</i>	The railroad tracks passing through the east plant permits easy accessibility onto plant property by unauthorized personnel. The potential for personnel mishap or damage to plant equipment is feasible without proper security.	Garcla	6/1/92	No Action Per RSC

SAFETY WORK LIST - SPECIAL

UNIT	GENERAL	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
C	Institute routine checking of hydrocarbon surge in east plant flare to insure that a safe level is always maintained. Clean the existing sight glass to allow determination of level.		Walther Garcia/Walther will maintain a positive hydrocarbon surge in the flare.		J.O. #177436-2 (5/61 Cleared) Complete (4/10/92)
N/A	GENERAL COMMENTS - WEST PLANT Nitrogen and instrument air lines found cross connected at several locations in the West Plant. The bleed valve between the instrument air line and the nitrogen line was found closed at two locations. The Plant must develop some system for preventing these two materials from cross-contaminating and possibly presenting a personnel asphyxiation hazard.		Walther Investigate	3/1/92	No Action Per RGL.
	The entire Coastal operating area have a very bad habit of using fire water for everything! If fire water is ever needed for a fire, it might not be available since it is being used for everything else.		Greg Walther	4/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	GENERAL	PSM		
	The emptying of lined roof atmospheric tanks containing flammable liquids allows air to enter through the tank vent. This situation can produce an explosive mixture within the tank. The maintenance of a slight inert gas pressure (nitrogen) along with the use of conservation vents can eliminate this hazard. An evaluation should be conducted of atmospheric tanks containing flammable liquids to determine the need for an inerting system.	PSM		AFE 42079 - Added Conservation Vents To 108 & 146 Tanks.
	GENERAL COMMENTS - WEST PLANT			
	Operating manuals and process and instrument diagrams are out of date and need to be updated.	PSM		
	MISCELLANEOUS	PSM		
	Process safety audits should be conducted periodically by a team of personnel knowledgeable in process hazards.	PSM		
	PCU	PSM		
	No simplified flow sheets in the PCU, operator training manual in control room & up to date PID's. Proposed PSM etc.	PSM		
	VISBREAKER - NITE	PSM		
	Capacity not listed on safety valve on top of B primary NITE reactor.	PSM		

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	The MRC reactor system is a prime candidate for a process hazard analysis using some of the standard methods like fault tree, hazard, or another, due to the cyclic reactor process and potential for runaway reaction. This unit does not have the instrument redundancy, alarm and interlock characteristic to such systems. The reactor safety valves need to be evaluated for capacity using the Biers system.	PSM will handle		
	INSPECTION DEPARTMENT	PSM		
	The structural integrity of process equipment and pipelines is evaluated up to the human limits of the small inspection group comprised of one Coastal employee and one contractor. Additional full time personnel would permit a more thorough and in depth program of ensuring the plant's safety from material failures.	PSM	9/1/92	
	QUINTANA PLANT HYDROCRACKER			
	CMA Heater shutdown is not automatic. Needs analysis	PSM		
	CATALYTIC CRACKER UNIT (CCU)			
	Process and instrument diagrams (P&ID) along with operating manuals need to be updated.	PSM		

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
C	GENERAL - PLANT WIDE	Val DeLeon		
	Several obsolete OSHA Form 20 MSDS remain in active file of plant data sheets. (The Form 20 does not provide for all the recommended hazard information currently required.)	Val DeLeon	2/1/92	Complete (4/10/92)
	No routine fire fighting equipment inspections performed (fire extinguishers, foam systems, fire monitors, etc.)	Val DeLeon	Set Up a Program 6/1/92	
	Preventative maintenance needed on emergency equipment to insure operability if needed. (Fire fighting equipment)	Val DeLeon		
	No routine testing of personal emergency equipment to insure operability if needed. (Safety showers, eye wash bottles, etc.)	Val DeLeon Set up units responsible	6/1/92	MAINTENANCE CHECKING & REPAIRING SAFETY SHOWERS/EYE WASH BATHS.
C	Safety meeting for hourly personnel not routinely held, but is planned for the future. Federal Training Guidelines.	Val DeLeon Monthly/Fiscal Year	1/10/92	Safety Mtns. Being Held Monthly By Maint. Supvs.
	Develop a transportation emergency response plan to cover such things as JACK TRUCKS, ICE, etc.	Val DeLeon / Carlos Stennett	8/1/92	
	National Fire Protection Association (NFPA) hazard identification signs should be posted on all tanks. These signs should be of sufficient size to permit observation by any response team coming into the plant during an emergency.	Benny Garcia / Val DeLeon (Procedures)	8/1/92	
	RECORDKEEPING Some check marks are missing in columns of the 1991 OSHA 200's.	Val DeLeon	3/1/92	
	Case numbers on the 200 are not used on the E-1's.	Val DeLeon	3/1/92	
	No initial new new annual training.			

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	Company program references 99 dha and it should be 85 dha TUA.	Vol Doleon	2/15/92	
	The program must address employee notification.	Vol Doleon	2/15/92	
	Need annual training.	Vol Doleon	2/15/92	
	Give employees access to the standard and Goal II.	Vol Doleon	2/15/92	
	GENERAL COMMENTS - WEST PLANT			
	Caustic tanks with pumps and piping should be provided with protective flange guards and signs requiring personnel to wear goggles. The splattering of caustic in the eyes has been a dangerous personal vision (blinding) situation in industry and must be avoided.	Larry Wilcox / Vol Doleon / Investigation	4/1/92	No Action Per RBC
	The 18 hydrogen sulfide detectors-monitors are of very questionable value, since a number of them were observed to be in the alarm stage. Operator dependence upon these devices to warn of danger is not too great. Since hydrogen sulfide was detected in a number of locations, an improved system for monitoring should be made available to prevent personnel injury. (Example: Hydrogen sulfide concentration is extremely high at coker Elliot compressor, gas oil low pressure separator, gas oil compressors, etc.).	Larry Wilcox / Vol Doleon / Investigation needed.		Cumulative AFE By MGH. 4/10 - AFE ESTIMATE BEING REVIEWED

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	MISCELLANEOUS - PLANT WIDE Underground fire water mains should be hydrostatically tested to insure the availability of sufficient water in the event of a fire. Reportedly, water leaks exist due to corrosion from a lack of cathodic protection which should also be installed on ALL underground pipelines (previously mentioned)	Vol DeLeon Investigate	6/1/92	
	The members of the In-plant fire brigade should receive more frequent training. An annual training is provided, but should be conducted quarterly for each shift crew of operators and maintenance.	Vol DeLeon Investigate	6/1/92	
	The responsibilities for maintenance of the plant's fire fighting equipment must be clearly understood by all. This includes fire extinguishers, fire monitors, hydrants, fire hoses, etc.	Vol DeLeon Contractor Better monitoring Operators unit. Issue Instructions	5/1/92	
	The Safety Department has the responsibility for maintenance of all the many hydrants and fire monitors. The current staffing of this organization is insufficient to achieve this responsibility and the condition of much of this equipment has deteriorated (and is probably inoperable) as a result.	Vol DeLeon	10/1/92	
	MISCELLANEOUS - PLANT WIDE Even where plant safety policies have been established, they are not being enforced. Additional safety policies, procedures, and rules need to be established, but without proper enforcement from the top of the organization, they too will be ineffective.	Enforce dress code - Employees and Contractors.	6/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	Lock out - Tag Out a) Procedures are not developed for specific pieces of equipment or types of equipment. The SID instruction permits developing procedures for complex plants for each unique job. This would require an isolation list along with the permit. b) Suggest a policy on the use of blinds or slip blinds... "use them where their use does not incur any more potential exposure than the maintenance job itself." c) Electrical safe work practices must be covered by lockout/tagout. d) Electrical training required for safe work practices not conducted. e) Training, retraining and certification for lockout / tagout not carried out. f) Need certified periodic inspections of lockout / tagout.	Vol DeLeon		
		Vol DeLeon	4/1/92	
		Vol DeLeon	4/1/92	
		Vol DeLeon	4/1/92	
		Vol DeLeon	4/1/92	
	Due to lack of designation of personnel roles, training has not been accomplished. 24 hour for first responder and 48 hour Supervisor. After initial training 6 hour annual refresher training is also required.	Vol DeLeon / Carlos Stennett	6/1/92	
	Respiratory Program - Respirators are not periodically inspected and cleaned.	Vol DeLeon	3/1/92	Parents On Controllable's
	Respirator Training - No initial or ongoing instruction in the use and care of respirators.	Vol DeLeon	3/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	INSPECTION 3RD. two (2) fire extinguishers in the instrument shop - no annual inspection tag.	None		W.O. # 171409-4 WRITTEN TO MAKE REPAIRS CHECKED (WORKING)
C	"No Smoking" sign - no reason for it.	None		Complete (4/10/92)
C	Weld torch not in use bottles outside are turned on. C242 gauge lens is cracked.	None		4/10 - REGULARITY FOR REPAIR. Complete
C	No tongue guard and work rest not adjusted on bench grinder outside back door of instrument shop.	None		Complete (4/10/92)
C	Plant air drop by east side of instrument shop not labeled.	None		Complete (4/10/92)
C	Temporary flex extension cord goes from near air comp. to the temporary building south of knock engine lab through holes in the wall and across driveway.	None		Complete (4/10/92)
C	Multiple receptacle box mald at end of extension cord, not intended for its use.	None		Complete (4/10/92)
C	Flex cords through hole in the wall to grinder.	None		Complete (4/10/92)
C	Blower electrical box - no cover.	None		Complete (4/10/92)
C	West side of shop. Receptacles of test bench not grounded.	None		Complete (4/10/92)
C	MSDS's not appropriate for area.	None		Complete
C	Housekeeping in and outside is bad.	T. ALVARADO		4/10 - Complete Complete - \$2,000
C	Circuit breaker near rear door not ID'ed.	None		Complete (4/10/92)
	ELECTRICAL SHOP			
	Fire extinguisher not prominently located under wash basin near west bay door, no inspection tag. Fire ext. in corner behind trash is unusable.	None		W.O. # 171409-5 WRITTEN TO MAKE REPAIRS CHECKED (WORKING)

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
C	Iron worker guards removed from the various locations.	None		Complete (4-10-92)
✓	Pendant control on 2 ton hoist not labeled correctly, hoist load hook latch is worn. No inspections.	None		Cumulative AFE By MGH. + \$2,000
C	Need housekeeping	None		Complete (4-10-92) \$2,000
C	Broken step ladder - west storage area not tagged or thrown away.	None		Complete (4-10-92)
C	Bench grinder tongue guard not adjusted.	None		Complete (4-10-92)
✓	Drill press needs to be bolted to floor - too much clutter around it.	None		
C	Unguarded fan and pulley in storage loft.	None		Complete
C	Need better warning of low ceiling in loft.	None		Complete (4-10-92)
C	Five unguarded light bulbs in ceiling of loft.	None		Complete
C	PIPE SHOP Ground lead on Miller welder badly damaged, near south door.	None		W.D. #171689-6 written for items checked. Complete (4-10-92)
C	Hot lead also needs repair.	None		Complete (4-10-92)
C	Remove polarity on receptacle next to weld machine - south wall.	None		Complete (4-10-92)
C	Both bench grinders need adjustment of tongue guard and work rests.	None		Complete (4-10-92)
C	Rear pulley of drill press needs guarding.	None		Complete (4-10-92)
C	Open switch box near south west door and at east wall.	None		Complete (4-10-92)
C	Ground lead on east wall Miller needs repair, hot lead near plug to machine needs repair.	None		Complete (4-10-92)

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	MACHINE SHOP No way to lock tag machines for servicing.	None	4/1/72	W.O. #171409-3 WRITTEN FOR ITEMS CHECKED. (WORKING)
C	Band saw - need guard for unused part of the blade.	None	4/1/72	Complete
C	Large bench grinder need tongue and work rests adjustments. Bolder also.	None	4/1/72	Complete
✓	Need chuck guard for Maserk 30 and American lathes.	None	4/1/72	
C	Need housekeeping.	None	4/1/72	4/10 - Complete Complete + \$2,000
	Fire ext. not sealed or inspected by office door.	None	4/1/72	
	CARPENTER SHOP			W.O. #171409-7 WRITTEN FOR ITEMS CHECKED.
	Fire ext. needs testing.	None		
	Radial arm saw does not return on its own.	None	4/1/72	EXISTING SAW NOT DESIGNED FOR AUTO RETURN
C	Small breaker box not labeled.	None	4/1/72	Complete (4-10-72)
	No way to tag or lock the radial arm saw.	None	4/1/72	CAN BE TAGGED OUT BUT NOT LOCKED OUT
C	Small band saw belt guard not secured.	None	4/1/72	Complete (4-10-72)
C	Back side of small floor fan not guarded properly.	None	4/1/72	Complete (4-10-72)
C	Ladder to storage area rotted at the bottom. Needs to go three (3) feet above landing. Landing needs guard rails.	None	4/1/72	Complete (4-10-72) \$2,000
C	Overhead storage needs toeboards and midrails.	None	4/1/72	Complete (4-10-72) \$2,000
C	100% BENCH Some star drills have mushroomed heads.	None STOREY	4/1/72	Complete (4-10-72)
C	Need tongue guard on grinder. Need to clean eye shield.	None STOREY	4/1/72	Complete
C	Grinder brush is old and shedding wire bristles.	None STOREY	4/1/72	Complete
	Electrical breaker not 18" od.	None STOREY	4/1/72	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DATE	COMMENTS
C	Floor needs repair by drill press and work bench.	TEAM STOREY	4/1/92	Complete (4-10-92)
C	SLING AREA BY PIPE SHOP Cloth slings are hanging on hooks are unserviceable due to wear.	None	4/1/92	W.O. #171489-6 WRITTEN FOR ITEMS CHECKED. Complete (4-10-92) \$2,000
C	Several wire rope slings are damaged and need to be removed. No sling inspections.	None	4/1/92	Complete (4-10-92) \$3,000
C	Trash in area.	None	4/1/92	Complete (4-10-92)
C	Some wire rope clips installed backwards on wire rope with turn buckle.	None	4/1/92	Complete (4-10-92)
	GENERAL			
C	Develop and implement a plan for inspecting the structural soundness of all storage tanks. This has been done for the 20 pressure storage vessels with some 16 having been inspected. Many atmospheric tanks have rust scale. Corrosion on some externally insulated tanks is visible and could be quite serious in areas not visible due to being covered by insulation.	Comptroller / Carlos Stornett Dariusz GARCIA Review Sect 5 (a) (1) Review/Regulatory And Research PSM (RELEF)	3/1/92	Paz Mouna Assigned To TE FARM.
	MISCELLANEOUS			
	Fire hoses intended only for emergency use are used routinely for other non-emergency purposes. This should not be allowed, and a severe penalty imposed upon those that do not follow the plant rule. The use of fire water from hydrants for other routine purposes has already been discussed and will not be repeated here.	None	3/1/92	
	GENERAL COMMENTS-VEST PLANT			
C	The company that was doing asbestos insulation repairs was not utilizing an explosion-proof extension cord which was supplying 110 volts AC to their non-explosion proof vacuum.	None	3/1/92	CONTRACTOR HAS BEEN INFORMED & WILL TAKE PROPER CARE. Complete (4-10-92)

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	There is no record of steam turbine over-speed trip mechanism being maintained. The possibility for having an inoperative trip mechanism is great with serious consequences resulting in the event of a malfunction on an operating turbine.	None	4/1/92	Cumulative AFE By Mgt. 4/10 - AFE Estimate Being Reviewed \$ 52,000
	EAST PLANT			
	Product line (8") is off the support beams and in danger of falling near the ally cooling tower. 12" line	None	3/1/92	Cumulative AFE Estimate Cumulative AFE (4-10-92)
C	The old reactor absorber stripper tower is severely corroded next to the concrete at base may become unstable. Similar condition on old tower east of the LEU.	None	4/1/92	Cumulative AFE 4/10 - Tower Skirt Inspected & Determined Structurally Sound. \$ 52,000
	WEST PLANT SHOP (WELD SHOP)			W.O. #171409-1 WRITTEN FOR ITEMS CHECKED.
C	Hand grinder not guarded in weld shop.	None	3/1/92	(Complete)
C	Bench grinder not and torque not adjusted.	None	3/1/92	Complete (4-10-92)
C	Pipe shop left. One ceiling light needs guard.	None	3/1/92	Complete
C	Bad housekeeping	None	3/1/92	Complete
/	Overheading crane pendant control not supported.	None	3/1/92	\$ 52,000
	MACHINE SHOP			
/	Torque guard not adjusted on stand grinder.	None	4/1/92	
/	Disconnects not 18"ed for holes.	None	4/1/92	
/	No torque guards on the stand grinder by south door.	None	4/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCIDENTALITY	DATE	COMMENTS
C	Six five gallon cans near lotto area - no labeled.	None	7/1/92	Complete
C	Compressed gas cylinder not secured near Safety Klean. Improper receptacle box near Safety Klean.	None	7/1/92	Complete
	Fire extinguishers not tested.	None	7/1/92	
	ELECTRICAL STORAGE			
C	No guardrails for overhead storage.	None	6/1/92	Complete
C	Need housekeeping throughout the shop.	None	6/1/92	Complete \$2,000
	ALUMINATION AREA - EAST PLANT			
C	Personnel platforms at tops and along sides of many columns are very badly corroded, structurally weak, and subject to eventual falling to the ground.	None	9/1/92	17-AL PLATFORMS RENEWED ON AFE 42050-1. 17-D20/E18 PLATFORMS BEING REPAIRED ON CONTROLLABLES.
	Explosion-proof light covers are missing at several areas of the plant.	None	9/1/92	Complete
	Various electrical appliances in control house are not grounded to prevent personnel shock hazard.	None	9/1/92	
	Many steam leaks in plant present a personnel burn hazard from both steam and polluted hot condensate.	None	9/1/92	STM. LEAKS BEING REPAIRED AS OPS. UNIT'S W.O.S \$2,000
	Many utility hoses laying on the ground with several connected to process equipment and utility station.	None	9/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	A number of small (3/4" and 1") pipe drops coming to the ground from larger overhead pipelines with no bracing or supports. A failure will probably occur at the welded coupling at the larger pipe from eventual fatigue resulting with an uncontrolled spill of whatever material is in the larger pipe.	None Allbright	9/1/92	J.O. # 117349-L + 582,000
C	Housekeeping of the area is unsatisfactory and needs considerable attention (SS-pailon drums, trash, pipe fittings, etc.)	None Allbright	9/1/92	<i>Complete</i>
C	Insulation on ground north of alkylolation unit and next to E8 column possibly is asbestos which could present a potential personnel health hazard and/or liability issue.	None Allbright	1/3/92	<i>Complete</i>
	Gate valve stems along pathway of row of pumps (P-4, etc.) stick out horizontally at eye level and present a personnel hazard. Some means of covering these valve stem ends with guards could prevent injury.	None Allbright	9/1/92	
	Nitrogen piping is not color coded, as prescribed in plant procedure B-3.	None Allbright	9/1/92	
	Cross feet connected to nitrogen piping in direct violation of plant procedure B-5, which prescribes the use of special dedicated fittings. The concern is that someone will connect to the cross feet, believing the utility to be air when it is not.	None Allbright	9/1/92	
C	Pipe are not used in cross feet utility hose connections to prevent hose from coming loose.	None Allbright	9/1/92	Maint. Crews Using Wire as fasteners.
C	Safety meetings have not been routinely conducted. Federal Training Guidelines.	None	9/1/92	Safety Meetings Held Monthly By Maint. Supvs. <i>Complete</i>

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	No routine fire fighting equipment inspections are performed on fire extinguishers, fire monitors, etc.	None V. DeLeon	9/1/92	
	Fire fighting emergency equipment is not uniformly painted red (some painted red, some painted yellow, some need painting.)	None V. DeLeon	9/1/92	
	No routine testing of personnel emergency equipment to insure operability if needed. (Safety showers, eye wash bowls, etc.)	None V. DeLeon	9/1/92	
	Plant ladders are not inspected for damage with potential for personal injury, if used.	None Opers.	9/1/92	7 \$2,000
	Utility hose stations not labelled as to contents.	None PSM	9/1/92	
	INSPECTION DEPARTMENT			
N/A	Underground pipelines along with storage tanks are not provided with cathodic protection to prevent corrosion.	None	9/1/92	No Action Per RAC.
	PIPE SHOP			
C	Welders not wearing safety glasses near operation.	None	6/1/92	Topic Of Perm. Maint. Safety Mtg. <i>Complete</i>
✓	Crane disconnect not found.	None	6/1/92	Cumulative AFE By MGH
	MACHINE SHOP			
✓	Pendant control support by its own wire - overhead crane.	None	6/1/92	W.O. # 171409-3 Written For Items Checked
✓	No latch on hook	None	6/1/92	(working) 7 \$3,000
✓	No limit switch.	None	6/1/92	
	No inspection.	None	6/1/92	
	WEST END OF CARPENTER EATING AREA			

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
✓	Paint storage drum of flammable (liquid) kerosene-min (Prop. Gly) used a tell valve on spigot instead of self closing valve.	None	4/1/92	
	Fire extinguisher - no inspection.	None	4/1/92	
	MISCELLANEOUS - EASY PLANE			
Q	Three (3) compressed gas cylinders of propylene standing upright inside shack at NE side of main electrical substation without any restrictions (chains, etc.) to prevent falling.	None	1/15/92	W.O. # 171409-7 <i>Complete</i>

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
C	Very bad hot crude oil leak at flange and valve on the north side of furnace 8-6 provides a slipping hazard for personnel.	Ullcox	6/1/92	Completed (4-10-92) J.O. #108633-1
	Holes have been cut into insulation at many locations to allow the Inspection Department to make audiotape thickness measurements. Many of these holes have existed for years. Insulation should be plugged to prevent personnel exposure along with reducing the possibility of further corrosion by water getting inside the exposed insulation.	Ullcox Practice & Procedure change.	9/1/92	+ \$2,000 Communication for Apts.
	GENERAL COMMENTS - WEST PLANT			
C	Many steam leaks throughout the west plant present both a burn hazard to personnel from the hot steam and condensate, but also a loss of valuable boiler condensate water.	Larry Ullcox	3/1/92	Completed + \$2,000
	GENERAL COMMENTS - WEST PLANT			
N/A	Caustic tanks with pumps and piping should be provided with protective flange guards and signs requiring personnel to wear goggles. The splattering of caustic in the eyes has been a dangerous personnel vision (blinding) situation in industry and must be avoided.	Larry Ullcox / Val Between (Procedures) Investigation	4/1/92	No Action Per R4C + \$2,000

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	The 12 hydrogen sulfide detecting-monitors are of very questionable value, since a number of them were observed to be in the alarm stage. Operator dependence upon these devices to warn of danger is not too great. Since hydrogen sulfide was detected in a number of locations, an improved system for monitoring should be made available to prevent personnel injury. (Examples: hydrogen sulfide concentration is extremely high at cooler effluent compressor, gas oil low pressure separator, gas oil compressors, etc.).	Larry Wilcox / Val DeLeon / Investigation needed.		<i>Report (see page 6)</i>

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	CATALYTIC REGENERATOR UNIT (ICOU)			
N/A	Plant ladders are not inspected for damage with potential for personnel injury if used.	Allright	6/1/92	No Action 4-8579000
C	Safety cage with vertical ladder on column about 50 feet above the ground has a bolt missing securing ladder to side of column 12-A-21.	Allright	6/1/92	Complete (4-10-92)
	MISCELLANEOUS - EAST PLANT			
C	Fire water pipeline at NE corner of main electrical substation in very badly corroded condition.	Allright Assessment	7/1/92	(Inspection) Complete
	EAST PLANT			
C	Both eye baths and showers near the sulfuric acid tanks need repairs. Main cooling tower.	Allright	2/1/92	Complete
C	Potable water at eye bath is connected directly to a chemical tank. Main cooling tower.	Allright	1/15/92	Complete
C	H2SO4 pump pit has a level of liquid in it.	Allright	2/1/92	Complete
N/A	No flange guards on the acid lines.	Allright	4/1/92	No Action
C	Recommend that a wire rope guard be stacked across entrance to the cooling water pump intake.	Allright	4/1/92	(W. H. T.) Complete
C	H2SO4 tank vent needs for possible plugging.	Allright	4/1/92	Complete
	Need to label and cap the acid tank truck unloading connection	Allright	4/1/92	
C	Water treatment chemical tanks are not labeled adequately. Main cooling tower.	Allright	4/1/92	Complete
	ICOU			
C	Two platforms on south side of Co Blr. one ladder gate not in place. No ladder gate on other side.	Allright	4/1/92	Complete (4-10-92) I.O.# 128780-2

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
C	Need ladder pot on south side of precipitator and four on the north side.	Allbright	6/1/92	W.O. # 120750-1 Complete (4-10-92)
C	No H33 respirator - two tanks.	Allbright	6/1/92	Complete
	H33 hose has 3 threaded at tank and 8 joints at other end. Using Chicago pneumatic coupling. Hose not marked "anhydrous ammonia".	Allbright	6/1/92	W.O. # 120750-5
C	Trash and saw horse at base of fire monitor next to H33 tanks.	Allbright	6/1/92	Complete
	No test of sprinkler systems.	Allbright	6/1/92	
	1500 STM to Bloor - steam trap not in service on the 1500 hdr. Need automatic ED pot and drain as well as the present manual bleeders.	Allbright	6/1/92	J.O. # 113011-4
C	Ruptured steam hose in service on ground between FCCU & BIR.	Allbright	6/1/92	Complete
	Fuel gas knockout pot manual drain to sewer. This does not go to a center location in case the valve sticks open.	Allbright	6/1/92	Cumulative AFE
	Fuel gas ED safety valve. Two block valves not sealed open. BIR. chg. to flare hdr. - valve closed. No ASME pressure vessel plate.	Allbright	6/1/92	
	PC without htr. #1. Safety block valves not sealed.	Allbright	6/1/92	
	12 -A21 ABS Tower. Continuous ladder. No offsets.	Allbright	6/1/92	+ 32,000
	12 -A-25 Spongo Oil Tower. ASME pressure vessel plate painted over. Need to determine need for a safety valve on the ED pot.	Allbright	6/1/92	
	There are 825 warning signs at north end of control room. There are no 825 respirators for use in the area in lieu of no monitors being present.	Allbright	1/15/92	Cumulative AFE

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
C	ALSY			
	Loose guy wire attached to pole supporting the high powered electrical lines at the main substation - east end. Can be blown into power lines.	Allbright	8/1/92	J.O. # 112011-3 Complete (A-10-92)
	Oil leak from one transformer.	Allbright	8/1/92	J.O. # 117349-5 + \$2,000
N/A	Pipe bridge from norene to ally. Need permanent access to large water gate valve. Scaffold is there now.	Allbright	8/1/92	No Action + \$2,000
	Control room pressurization not working according to gauge on panel board.	Allbright	8/1/92	Complete AFE By MD. + \$2,000
	Air intake for control room is 10 ft from gauge glass on track out drum.	Allbright	8/1/92	"
	Crow foot connection is used on suction of combined feed pump to add water at times.	Allbright	8/1/92	
	Water draw off from the feed drum is manually controlled to pad once/shift. Two valves condemned from dryers is drained to pad once/shift one valve. Neither go to a safe location. Saturate receiver also. Two valves.	Allbright Pipe any further.	8/1/92	Cumulative AFE + \$2,000
	Tank #11 - feed to norene. Two manual drains. Painted towards sphere. Used to purge water layer. Three more for ally; 131, 125, and 126. Need cloud systems or safe locations.	Allbright	8/1/92	+ \$2,000
	Broken cross brace on tank 235.	Allbright P. GARCIA	8/1/92	
	Ally cooking tower - chlorine feed tubing broken at the cylinder rotameter.	Allbright	8/1/92	
	Severe external corrosion on vertical bullet tank #126 at the foundation pads.	Allbright	8/1/92	+ \$2,000
	#126 sample valve leaks and the sample line needs support.	Allbright	8/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	No fire extinguishers in Alky feed tank farm.	Allbright	8/1/92	
	Open pits with hydrocarbons, near tank 123.	Allbright	8/1/92	
C	Non explosion proof extension cords used in Alky feed tank farm. No BWP for this.	None	8/1/92	Complete (A-10-92) MAINTENANCE CREWS WERE USING 12V. LIGHTS TO CLEAN SPHERE TANKS
	Water and oil stands under Alky feed spheres.	Allbright	8/1/92	
	Bolts missing in 8" nozzle under tank 132. Bad corrosion for piping. Open and 3/4" valve on bottom head.	Allbright	8/1/92	
	W storage tank relief valve closed in by block valve and slip blind due to scrubber out of service.	Allbright	8/1/92	
C	Alky has airline respirators for working, but nothing for escape.	Allbright	8/1/92	Complete
	CATALYTIC CRACKER UNIT (CCU)			
	Streets for motor vehicles pass extremely close to process equipment and could provide a ready source of ignition in the event of a process leak or spill. (This comment is not restricted to the FCCU area, but appears to be fairly universal throughout Coastal's facilities. Refer to 1-3 above.)	Allbright	8/1/92	
	Nitrogen and plant compressed air are piped together to provide a backup to the instrument air supply in the event of a loss of air pressure. A check valve with gate valves are provided to prevent cross contamination, but a more positive and foolproof system should be provided, since cross contamination can occur from leakage.	Allbright	8/1/92	J.O. # 112011-1 * \$2,000
C	There is no guard on coupling between CO blower and its motor drive.	Allbright	8/1/92	Complete

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	There is no guard on coupling on motor fan gear boxes on fin-fan coolers.	Allbright	8/1/92	
C	Housekeeping of area is unsatisfactory and needs considerable attention (55-gallon drums, trash inside vessel skids, etc.)	Allbright	8/1/92	Complete
	Fire hoses not inspected and could have deteriorated to point of failure if placed in use during an emergency.	Allbright	8/1/92	
C	Many utility hoses laying on ground with several connected to process equipment.	Allbright	8/1/92	Complete
	No eye wash facilities provided in the vicinity of precipitator switch gear room containing acid storage batteries.	Allbright	8/1/92	J.O. # 112011-2 & 5 + \$2,000
C	Precipitator switch gear room has explosion-proof electrical fittings along with non-explosion-proof fittings. Electrical classification of area needs defining.	Allbright	8/1/92	Area Classified As Non-Hazardous -- Does Not Need Explosion Proof Fittings. Complete (4-10-92)
C	Explosion-proof light fixture cover is broken on top floor of structure in vicinity of 12-A-25.	Allbright	8/1/92	J.O. # 128750-3/4 Complete (4-10-92)
N/A	Critical instrument alarms are not checked to insure their operation when needed.	Allbright	8/1/92	No Action + \$2,000 (N/O) Yearly
C	Emergency electrical generator needs periodic testing to insure operability when needed.	Allbright	8/1/92	"Wheaver" To Test Complete (4-10-92)
C	Noise area warning signs not uniformly posted throughout the area.	Allbright		J.O. # 112011-7 Complete (4-10-92)
C	CO boiler will observed to be moving back and forth. Evaluate need for strengthening to prevent possible fatigue failure.	Allbright	1/30/92	Completed Action - AFE # 42095 (EVALUATED RUGGAGE) 4/10 - (AFE 42112) RENEWING OOTER-CASING.

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DATE	CURRENTS
	Utility hose stations not labelled as to contents.	Allbright		
	Utility hoses not periodically checked, with some observed to be in questionable condition.	Allbright		
C	Pins are not routinely used in cross feed utility connections to prevent hose from coming loose.	Allbright		<i>Complete</i>
	FCU contains considerable quantities of asbestos insulation. Many locations had damaged insulation which should be properly required to prevent personnel exposure.	Allbright		OPERATIONS TO DETERMINE SEPARATE WORK SCOPE/NEED. AFE
	Nitrogen hose station is not color coded as required by plant procedure B-5.	Allbright		4/10 - WORK SCOPE BEING REVIEWED. J.O. 4/11/2011-B
	No routine fire extinguisher inspections conducted.	Allbright		

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	EAST PLANT INSPECTION DEPT.			
	For test and inspection, corrosion is not extrapolated to determine timely replacement to prevent reaching minimum thickness before next turnaround as in API 510 section 4.3.5 (c) (1).	_____ HURE	12/30/92	
	Tank tops are not tested and repaired regularly to prevent people from falling through.	_____ CARRERA	12/30/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	QUINTANA PLANT HYDROCRACKER			
C	Cross feed in fuel pot liquid level for CHS heater.	Burgan	6/1/92	Complete (4-10-92)
C	Suction relief valve to the makeup N2 compressor has a shutoff valve and its not sealed in the open position.	Burgan	6/1/92	Complete (4-10-92)
C	Unguarded floor openings by "A" N2 comp.	Burgan	6/1/92	Complete (4-10-92)
C	Drift trap from high pressure cold separator does not have adequate pipe support.	Burgan	6/1/92	Complete (4-10-92)
	Handle on the screen of the suction of unconverted oil pump is not distinguishable from that of a slip blind.	Burgan	6/1/92	
	Vent from the tube oil recovery tank has N2S and the vent is too close to ground level. Needs rerouting and warning signs.	Burgan	6/1/92	AFE 42072 (1 SOURCE)
	Vent on tube oil tank for recycle compressor has N2S and is too low for operating area.	Burgan	6/1/92	AFE 42072 (1 SOURCE)
C	Section on piping of N2 vent to flare. Should be plugged in.	Burgan	6/1/92	Complete (4-10-92)
C	Section of the N2 recycle compressor is set up with one 3/4" valve being closed from atmosphere at the nitrogen tie in. 2000 psig N2.	Burgan	6/1/92	Complete (4-10-92)
C	No transmitter gauge for pressurized control room.	Burgan	6/1/92	Complete (4-10-92)
C	Two respirators - four operators.	Burgan	6/1/92	Complete - AFE 42072 - Complete
C	No ladder gate on top of 10-V-20 tank.	Burgan	6/1/92	Complete (4-10-92)
	Equipment in unit is not labeled or 10' dia. Tank of NOLA also not labeled.	Burgan	6/1/92	Complete (4-10-92) 152,000 W. W. W. W.

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	Door to electrical control room corroded away at the bottom. Latch broken.	Durgan	6/1/92	J.O. #129142-7
C	Electrical control room has material stored on floors behind breakers.	Durgan	6/1/92	No Work - Material is Stored in Now-Use Area of MCC Bldg.
C	Need to develop butane sampling to avoid flushing to atmosphere - near furnace.	Durgan	6/1/92	Complete (4-10-92)
C	Open ended valve on Rt. air outlet of jet fuel to storage.	Durgan	6/1/92	Complete (4-10-92)
C	Fractionator column reflux line is supported on unsupported overhead line at third level.	Durgan	6/1/92	Complete (4-10-92)
	South water storage tank needs to be tested. Leaks are evident near top, but across the top the top is not blocked. Employees may fall through. Tank failure would gas the area with H2S.	Durgan	6/1/92	Next T/A + \$2,000
	Automatic water drain from the foot of the naphtha overhead accumulator discharge to atmospheric (open) drain underground near heaters. Instruments may malfunction and cause fire.	Durgan	6/1/92	Cumulative AFE
C	Ball Valve on naphtha line to storage from cooler can easily be bumped open by anything. Valve handles not secured closed.	Durgan	6/1/92	Complete (4-10-92)
	Fuel gas knockout not drained water automatically to open sewer. Instrument malfunction will cause fire.	Durgan	6/1/92	Cumulative AFE
C	Respirators are not used for pulling H2S contaminated samples.	Durgan	6/1/92	Complete
	Automatic shutdown instruments are not tested during turnarounds.	Durgan PSM	6/1/92	+ \$2000 (W/O, yearly)

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DATE	COMMENTS
C	JBA - P1H - HPS			
	Four operators - two respirators (air supplied) no respirators for routine sampling of benzene and H2S streams.	Durgan	8/1/92	Cumulative AFE By MGH. Complete
	Water draw off from recovery column overhead receiver water boot. Continuous to pad manual control. Leave alarms in control room. Aromatics above the water. Sulfuric acid unit.	Durgan	8/1/92	Cumulative AFE
	Benzene overhead receiver water boot - manual draw off to oily water.	Durgan	8/1/92	Cumulative AFE
C	Condensate line end control valve by telum tower needs insulation for burn protection.	Durgan	8/1/92	Complete (4-10-92)
C	Exchange 46008 head needs burn protection.	Durgan	8/1/92	Complete (4-10-92)
	Prefractionator column overhead receiver water drag is auto controlled to oily sewer. Can release H2S and light hydrocarbons.	Durgan	8/1/92	Cumulative AFE
C	Nitrogen cross tie to instrument air has a double valve and vent, but no check valve to prevent air from entering nitrogen.	Durgan	8/1/92	Complete (4-10-92)
	Utility drops need labeling in HPS unit.	Durgan	8/1/92	J.O. # 116652-2 Blanking (90% Complete)
C	Need ladder gate on top of guard resister.	Durgan	8/1/92	Complete (4-10-92)
	No access to platforms on the four reciprocating recycle compressors. No guard rails.	Durgan	8/1/92	Cumulative AFE By MGH. + \$2,000

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	No alternate means of egress from reformer reactor platforms.	Dungan	8/1/92	
C	1st and 2nd stage relief valves on the makeup compressors have shutoff valves before flare header and are not "sealed" open.	Dungan	8/1/92	Complete (4-10-92)
C	No Benzene Danger signs posted.	Dungan	8/1/92	Signs Completed Complete

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	INSPECTION DEPARTMENT			
	Develop a procedure to insure that all tank diked water drains are maintained in the closed position unless actually draining water.	Carole Sternett / Billy Dickman	9/1/92	
	Evaluate all tank dikes to insure adequate size to contain a spill in the vent of a tank failure	Carole Sternett / Billy Dickman AFE	9/1/92	ASSESSMENT - AFE 4207L (BHP) AFE 42113 IMPLEMENTATION - SEPARATE AFE
	FCU			
	Unit drainage is bad. In case of fire it will float burning hydrocarbons to other areas.	Dickman To investigate	6/1/92	SEPARATE AFE
	LABORATORY			
	A serious personnel exposure problem may exist within the main laboratory due to the presence of various hydrocarbon vapors in the atmosphere. The vent hoods appear to function as intended only when the doors to the outside of the building are opened and sufficient air is permitted to enter the building. The hydrocarbon odors are readily apparent to anyone entering the building. The need for monitoring personnel for exposures to materials such as benzene is badly needed. An engineering solution to the ventilation system is also needed in order for the vent hoods to function properly.	Dickman AFE	12/30/92	SEPARATE AFE

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	If a sufficient supply of fresh air were available for the vent hoods as discussed above, markings on the vent hood sliding doors should be provided so that the doors will be placed in the required position to obtain the designed air flow through the hood. Doors that are fully open do not normally provide for complete removal of vapors released in a vent hood and these vapors can enter the room.	Dickman	12/31/92	* \$2,000
	All samples, reagents, flammables, etc. are disposed in the laboratory sinks which drain to the plant's waste oil sewer. Process units also discharge into this sewer. The probability for having an explosive mixture of flammables and air in this plant-wide system seems great and should be investigated and eliminated if this condition is found.	Dickman	12/31/92	* \$2,000

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	SOUTH SIDE OF E-2 LAB Grating on trench damaged and not fitted properly.	Clark Ellison	3/1/92	
	Need curb or barrier protection for M2 tank.	Clark Ellison	3/1/92	
	Knock engine lab - fire extinguisher not inspected.	Clark Ellison	3/1/92	
	five gallon cans of Moram Elf not labeled (MafCam).	Clark Ellison	3/1/92	
	Recommend that storage of gal cans of gasoline be outside of lab or in storage cabinets.	Clark Ellison	8/1/92	
	Recommend ventilation be installed to exhaust from floor level.	Clark Ellison	8/1/92	
	LABORATORY			
	Safety meetings have been conducted, but not routinely. Federal Training Guidelines.	Clark Ellison	2/1/92	
	Laboratory personnel have developed a bad practice of jamming open the spring loaded vent covers on the flammable safety cans (they should be closed) to allow the contents such as acetone, gasoline, etc. to come out the faucet faster. This action defeats the purpose of the safety can and also contributes to unnecessary vapor emissions within the building. Additionally, these cans should be grounded to prevent static electricity from causing a fire or explosion.	Clark Ellison	3/1/92	
	The sprinkler system in the laboratory sample retain room reportedly has never been tested. The gate valve which would be required to be opened to operate the system appear to be difficult to open due to the lack of apparent movement over many years.	Clark Ellison	3/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	Fire extinguishers have not been inspected, with many missing the seals, indicating that they may have been used at some time.	Clark Ellison	3/1/92	
C	Most drums from which flammable liquids are dispensed were protected from developing static electricity by electrically grounding. One acetone drum located in the retain room was not provided this grounding.	Clark Ellison	3/1/92	Complete (4-10-92)
	Drums from which flammable liquids are dispensed should be provided with self-closing valves or faucets. This type faucet was on only two of seven drums of flammables.	Clark Ellison	3/1/92	
C	Various electrical appliances throughout the laboratories are not grounded.	Clark Ellison	3/1/92	Complete (4-10-92)
	Safety cans for collecting dirty rags (oil, etc) were available; however, lids had been removed defeating the purpose of the can.	Clark Ellison	3/1/92	
	One of the Compur 6100 hydrogen sulfide personnel monitors used by laboratory personnel when sampling in the plant was due for recalibration about one year ago.	Clark Ellison	3/1/92	

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	The practice of having a laboratory employee climb to the top of various storage tanks to take samples is a major concern due to the lack of knowledge of the structural strength of the tank roofs. This job is done at all hours of the day. The employee is not provided a backup in the event he has a problem. The previously recommended storage tank inspection program would solve the integrity problem. However, if the program were started today, it would probably take five or more years to complete. Until a thorough tank inspection can be accomplished, the roofs upon which these employees routinely visit should be, at a minimum, inspected and marked off as safe.	Clark Ellison	Ongoing	XXXXXXXXXX XXXX

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	WAREHOUSE			W.O. WAITTEN J.O.# 126098-3
	1000 lb. capacity floor load signs not appropriate to overhead storage area. Some at pallet storage. Guardrail needed on the open sides.	Sandra Storey	8/1/92	4/6 - GUARDRAIL INSTALLED
	Slings need inspection.	Sandra Storey	8/1/92	CUMULATIVE AFE BY MGH. 782,000
	Case M4119 - Forklift - No horn. Seat belts are bad. Chaining need lubrication for load lifts. Right rear tire nearly flat. No operator training.	Sandra Storey	8/1/92	(Sent Out for Repairs)
C	Wood step ladder outside shop has broken step.	Sandra Storey	8/1/92	Complete
C	Electrical junction box in concrete next to dumpster needs permanent cover.	Sandra Storey	8/1/92	Complete
	WAREHOUSE - GUINIANA			J.O.# 126098-3
	Fire extinguisher not properly located by gate. (Hard to get to)	Sandra Storey	6/1/92	
C	Eye wash by north door outside does not work properly.	Sandra Storey	6/1/92	Complete (4-10-92)
C	Butane tank - 250 gal 250 MWP no protection from vehicle traffic. Woods and waste paper behind tank.	Sandra Storey	6/1/92	4/6 AGGREGATE BEING FAB'D. Complete
	No floor load signs for storage over office.	Sandra Storey	6/1/92	
C	Fire extinguisher missing outside the office.	Sandra Storey	6/1/92	Complete (4-10-92)
C	#3 Warehouse - east end - pallet falling under heavy piece of equipment at ground level - equipment resting on a fire extinguisher.	Sandra Storey	6/1/92	Complete (4-10-92)
C	#3 Warehouse - several items and a pallet of drums obstructing the aisles.	Sandra Storey	6/1/92	Complete (4-10-92)

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	WAREHOUSE - EAST PLANT			
0	Hazard warning labels are not included with shipments of containers of samples, such as benzene, when they are sent to customers. The warehouse has the responsibility for affixing the proper shipping warning labels (FLAMMABLE, etc) to the package, but were not aware of other requirements.	Sandra Storey	2/1/92	<u>Complete (4-10-92)</u> Employees were informed of the requirements & are following the correct procedures.

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
	EAST PLANT			
Conf	Chertok leading rock - Instructs arrive with wet asphalt in them and cause the dome while leading. Need to require dry tank trucks.	Chertok Re-issue instructions to loaders.	3/1/92	Complete
Conf	b) Loading area counter weights not adjusted regularly causing drivers to strain backs placing the spout. May need redesign.		3/1/92	Complete
	c) Ramp from leading rock does not provide adequate guardrails for placing spouts in dome.		8/1/92	e) Ramp has guardrails - Some Tracks Have guard rails, some don't.
Conf	Condensate Tank - a) No ladder gate on ladder. b) Guard rails needed on top where ropes are.	Chertok	6/1/92	Remove the by mouth A) J.O. #132407-1 All Complete CUMULATIVE AFE J.O. #132407-2
Conf	c) Tank needs 100' 100 and 100' 100. Top needs to be done before walking on. <u>Expendable</u> is expendable.			
Conf	d) Third rung on ladder is badly bent.			
	ROLLER HOUSE			
	No eye wash or shower near tank of Betz 3667 which is corrosive.	Chertok	6/1/92	
Conf	Relief valve on 0450 feed pump turbine is closed in by a block valve.	Chertok	1/15/92	Complete
Conf	Temporary floor hole where vacuum hose is in trench - east side of #1 boiler.	Chertok	2/1/92	Complete
	VISBREAKER - RIDE			
Conf	Vibbreaker overhead water discharged to oily water sewer direct by level control. No redundancy. If you lose the water level you get high 228 and gasoline vapors in the area. Should go to closed system only.	Chertok	8/1/92	SEE #13072 (10/92) J.O. #110518-2 Complete

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
C	Oxygen respirator in control room is not full. Inspected in 1987. Scott air pack is full. No other respirators in unit.	Chernetski	8/1/92	<i>Complete</i>
C	Unplugged bleeder valves on the viabreaker, overhead water. Also on base of Xylene tower.	Chernetski	8/1/92	J.O. #17351 <i>Complete</i>
C	Floor holes and uneven trench covers at trench northwest of viabreaker columns.	Chernetski	8/1/92	J.O. #17351 <i>Complete</i>
C	Back side of belt and pulley guard on the viabreaker. Overhead relief gas compressor not guarded.	Chernetski	8/1/92	<i>Complete</i>
	No H2S hazard warning signs in the unit.	Chernetski	8/1/92	
C	Sample gas cylinder with propane next to analyzer shed is badly corrupted on bottom.	Chernetski	8/1/92	<i>Complete</i>
C	Ladder rent to analyzer shed. No ladder gate.	Chernetski	8/1/92	J.O. #17351 <i>Complete</i>
C	Xylene overhead receiver - no guard rails on platform. No plug in drain from liquid level instrument header.	Chernetski	8/1/92	J.O. #17351-3 <i>Complete</i>
C	Fire extinguisher inspected in Jan. 1990.	Chernetski		<i>Complete</i>
N/A	Sprinkler system - not test operated.	Chernetski		<i>SPRINKLER SYSTEM TO BE REMOVED.</i>
C	Electric control room needs housekeeping.	Chernetski	8/1/92	<i>Complete</i>
C	Electric adaptor from explosion proof to non explosion proof receptacle in service in electric control room. Extension cord is there for use.	Chernetski	8/1/92	J.O. #111412-3 <i>Complete</i>
C	Open ended pipe by turbine in electric control center.	Chernetski	8/1/92	<i>Complete</i>
	Pressure indicator shows no pressure in pressurized control room. Control room doors are corroded through.	Chernetski	8/1/92	APR BEING PREPARED BY MD. #23-000

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
C	Emergency generator for providing emergency lighting in unit has been provided, but is inoperable and should be repaired.	Charnetaki	9/1/92	Complete (4-10-92)
C	Instrument air supply has no emergency backup in the event of loss of pressure (which has almost occurred). Nitrogen is available in the area and could be utilized as a means of backing up the instrument air system. HOWEVER, if this is done, the system must be designed such that no possible inadvertent cross contamination of either stream can occur.	Charnetaki	9/1/92	Complete + \$2,000
C	Nitrogen piping not color coded as prescribed in plant procedure D-5.	Charnetaki	9/1/92	Complete
C	Utility hose stations not labelled as to contents.	Charnetaki	9/1/92	Complete
C	Explosion-proof light covers are missing in several areas, including the area of the styrenes accumulator and its overhead condenser. Electrical junction box cover also is missing near the stairs leading to this accumulator.	Charnetaki	9/1/92	Complete (4-10-92)
	MINE unit contains considerable quantities of asbestos insulation. Many locations had damaged insulation which should be properly repaired by personnel qualified to work with asbestos to prevent personnel exposure.	Charnetaki	9/1/92	OPERATIONS TO DETERMINE EXTENT OF REPAIRS. SEPARATE AFE
	Many various size pipelines are either not structurally supported or have been supported with the use of falling wire.	Charnetaki	9/1/92	Cumulative AFE By MGH. + \$2,000
C	Housekeeping of the area needs attention (considerable trash inside of vessel support skirts, presence of empty drums, etc.).	Charnetaki	9/1/92	Complete + \$2,000

SAFETY WORK LIST - SPECIAL

UNIT	ITEM	ACCOUNTABILITY	DUE DATE	COMMENTS
C	Grounding cable for column B-8 is broken at ground level.	Charnetaki	9/1/92	Complete
	Checks for operability of steam turbine over speed trip mechanism are made, sometimes when turbine repairs are made. There are no records maintained to insure that all turbine trip mechanisms are eventually tested and it is possible for some turbines to never be tested.	Charnetaki	9/1/92	+ \$2,000 Cumulative AFE
	No provision for automatic shutdown of heater fuel in the event of a loss of flow of material being heated within tubes can result in the rupture of heater tubes (and fires, etc.).	Charnetaki PSM	9/1/92	+ \$2,000
C	The four MBE reactors operate with an exothermic reaction between isobutyrene and methanol. If the flow of methanol is lost, the reaction can run away with potentially dangerous consequences. The interlock which has been installed on the methanol flow to the reactors which blocks in automatically the flow of isobutyrene if the methanol flow stops has been made inoperative. If this system cannot be made to operate as it should, some other automatic system to prevent a run-away should be provided to protect the plant and its personnel.	Charnetaki	9/1/92	Complete + \$2,000
	MIN/HAZARDOUS - EAST PLANT			
C	Critical alarms on various instruments are not tested to insure operability.	Charnetaki PSM	9/1/92	Complete + \$2,000 (W/O, per say)
C	Many unsupported lines, with some lines being supported with balling wire.	Charnetaki	9/1/92	Complete Separate AFE

SAFETY WORK LIST - SPECIAL					
UNIT	ITEM	ACCOMPLISHMENT	DATE	COMMENTS	
C	Electric motor switch on "bottom pump east" is different from other motor switches and cannot be locked in "off" position.	Charnetaki	9/1/92	Complete	
C	Large section (3' x 10') of metal insulation cover is hanging loose from the heat exchanger located above "oil RD/BOLIS" vessel and could injure personnel.	Charnetaki	9/1/92	Complete (4-10-92) J.O. #121939-1 + \$2,000	
C	Housekeeping of area needs improving (trash inside of vessel support skirts, empty drums, hoses on ground, etc.).	Charnetaki	9/1/92	Complete (4-10-92) + \$2,000	

DEPARTMENTAL CORRESPONDENCE

DATE: 28 MAY 1992

SUBJECT: STATUS OF SAFETY AUDIT AFEs

FROM: M.H. DeBERRY DEPT: MAINTENANCE

TO: LJ HUWE CC: RGC, GW, CS, XC, JKD

In order to correct the deficiencies listed in the "1992 Safety Audit" we are writing the following AFEs:

Control Room Pressurization - East Plant Control Rooms were originally equiped with pressure fans but have all deteriorated and are not in service. Besides pressurization filtration should be inclded for Alky Unit and South Side (H2S hazard). At Quintana vestibules similar to those on West Plant Contol Room doors should be added to allow existing equipment to meet design specification.

Asbestos Abatement in East Plant - Operation submitted list of locations of exposed asbestos. Scope of work and bid package is near complete we plan to bid the job and then write the AFE.(expect \$250M)

Tanks 52, 53, 55, 71 Insulation Repair - falling panels cause personnel nazard. AFE submitted to clamp and repair only \$263M.

Cummulative AFE - Michey Harris (BHP) wrote AFE \$640M for all Safety Audit Repairs over \$2,000. Major portions include; H2S monitors, lifting devices and chokers, replace temporary pipe supports with permanent, plug inspection holes (although included in AFE those with asbestos will be 95% done on separate asbestos AFE..

RAM 0002220

4-8-72

Separate AFF

- 1.6. ① Ch. Transmittion - Priority \$150,000
 ② All 3 Quintana Ch. are done, but not working
 * no vestibules - need to have
- ③ ⑥ Electrical - need to verify elect. configuration of Ch
 ⑦ In Goodwin - to remove 3-25-92 Surge
 ⑧ Match - looked @ Water, got old file on Water for Ch.
- ④ Asbestos Removal/Sealant
 ① list from GPs
 > Allbright
 > Clelland
 > Dwyer
 > Krasty } real lists } give to SEC, ACT, Thorne to bid work
- ⑤ ③ Tank Insulation (2 \$500,000 for complete insulation removed 55, 71, 52, 53)
- ABC * Do not do for Energy Conservation, be sure there is not some way to sealing w/o removing it.
- ① Thorne/SEC - bidding
 ② gate - for repair only, salvage
 ③ 20% Contingency
- ④ Sec. #6 on Line
- ⑤

RAM 0002221

4-8-72

COMBUSTIVE WFE (at \$755,000) 2.7. years

- ① Temp Lines - instant lamps (points)
- ② HS Monitors - McGraw agreed on new HS
Houston (Siber) at Bentley
mining.
BHP ~ Henry of Location

RAM 0002222

DEPARTMENTAL CORRESPONDENCE

*Larry here is
a 1st Draft
of this letter
on Audit.
for review
MD*

DATE: 16 MARCH 1992

SUBJECT: PROGRESS UPDATE 1992 SAFETY AUDIT REPAIRS

TO: LJ HUWE DEPT: MAINTENANCE

CC: RCC, GW, JF, XC, JKL *no distribution of 1st draft.*

FROM: MARK DEBERRY DEPT: MAINTENANCE PLANNING

In order to correct the deficiencies listed in the 1992 SAFETY AUDIT REPORT, the Maintenance Report has taken the following steps:

1. Work orders have been written authorizing work to be performed at each of the unit locations (See attached 1992 SAFETY AUDIT REPAIRS). Work which has been directed to be work order repairs are logged in as entries to a separate work order log book.

2. A cumulative Safety Audit AFE is being prepared to cover repairs of the following:

a. H2S Monitors Plant Wide - Estimate & Recommendations will be made before cost can be determined.

b. Plant Wide Stationary Lifting Devices - An Audit & Recommendations will be made so that cost can be estimated (Demolition or repair of gantry cranes in the unit) *will be recommended*

c. A Field Audit Plant Wide of temporary piping is being made. Piping now is staged at various locations in the plant and needs to be stored in racks.

d. A Data File is being assembled of Turbine Overspeed Trip mechanisms. Safety Dept. has been asked to supply information on required frequency of testing to determine annual cost.

e. Asbestos Insulation Inspection Test Holes Plant Wide - Recommend including repair cost of accessible locations during Turn Arounds. All other areas to be included in this AFE.

f. Storage Area Above Carpenter Shop - An inspection is being made of termite damage and recommendations for repairs will be included.

RAM 0002223

3. A separate AFE is being prepared for insulation repairs to Tanks 55, 52, 53, 71.

4. A separate AFE is being prepared for Control Room Pressurization. If emergency work orders are written, the work will be performed on controllables as needed.

5. A separate AFE is being prepared for Asbestos Insulation repairs and removal. Alvin Albright has submitted a work list of all needed repairs in his area.

The Scope of the 1992 Safety Audit Repairs is limited to the 56 page report. In order to account for these repairs, Maintenance Planning will record the work orders and report progress on AFE's.

I would like to say something to the effect of. Please Do not write W.O.s to Safety Audit #s unless they are within the scope of this work. Also on work that will be covered on AFE's please do not write W.O.s unless it is a ~~true~~ emergency. When writing work orders on the Unit work orders please reference the page # of the 56 page report so that no mistakes are made of the scope of the work.

I deliberately left out report on % complete for each area
apparently Quintana is well ahead 80% complete
W.P. for Pehin
A.A. about 40%
C.C. ~~is~~ also less than 25%

STANDARD
10-10-2001



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