WGK 271
REV. 6-1-57

WORK ROPOSAL

WGK PLANT TECHNICAL SERVICES

ORIGINAL TO T.S.D. JOB BOOK
CC: ASST. ENG. SUPT. DESIGN
R. S. Wobus
R. E. Soden
T. W. Dalton
J. F. Neff
J. R. Kellogg
J. F. Stickley (2)

INITIATED BY	DATE
J. R. Kellogg	5-27-59
COMPLETED BY	**DATE**
R. C. Canfield	5-27-59
DEPT. 246	**PRODUCT** Aroclors
JOB NO. 729: 2410	**FOLDER:** 246 (2410)

TITLE

AROCLORS: IMPROVE CHLORINATOR OFF-GAS SYSTEM

STATEMENT OF PROBLEM AND OBJECTIVE *(Use reverse side if necessary)*

Process changes, made in the chlorination step to produce a more stable Aroclor, have resulted in higher off-gas temperature with more entrained product in the off-gas stream. This causes a more rapid degradation of the light Aroclor scrubbing liquid and increases the amount of low stability product formed.

Successful demonstration of an improved off-gas system on #5 chlorinator

(OVER)

ESTIMATED SAVING OR OTHER BENEFITS

Actual savings cannot be estimated at this time; however, the following benefits will be realized:

1. Improved product quality by eliminating scrubbing liquors.
2. Lower maintenance costs will be achieved by replacing equipment which is in a poor state of repair.
3. As a direct result of (2), fewer process interruptions and less down-time will be experienced.

SUGGESTED APPROACH, REFERENCES, ETC.

Eliminate present off-gas scrubbing system by installing gas coolers and entrainment separators on four chlorinators. The equipment will be similar to that now in use at Anniston and now installed on one chlorinator at W.G.K.

PRELIMINARY EVALUATION *(To be completed by Technical Service Dept.)*

MANPOWER REQUIREMENTS			NO. MEN	T.S.D. COST	ESTIMATED SAVINGS OR PROFITS	NEW FIXED CAPITAL
EVALUATION	40	MAN HOURS	1	$1450	To be determined	$11,700
Ch. E. DES.		"				
M. E. DES.	30	"				
E. E. DES.		"				
INSTR.		"				
DRAFTING	58	"				
START-UP	160	"				
		"				
		"				
		"				
		"				
TOTAL	288	"				
TOTAL	36	MAN DAYS				

COMMENTS

1. Estimated new capital requirements

a. entrainment separators (4 req'd.)	$1200
b. gas coolers (4 req'd.)	2500
c. process, water and vent piping	8000
TOTAL	$11,700
2. Repairs to grating, steel supports, etc.	1,100
3. Dismantling expense	1,000
TOTAL PROJECT	$13,800

0137379

ORIGINAL SIGNED BY

ASSIGNED TO T.S.D. ASST. ENG. SUPERINTENDENT
H. S. Scott

APPROVALS

GENERAL SUPT.	PLANT MANAGER	TECHNICAL PRODUCTION MGR.
T. W. Dalton	R. E. Soden	R. S. Wobus

HARTOLDMON0004800

STATEMENT OF PROBLEM AND OBJECTIVE (cont'd.)

(W.G.K. TSD Job #729:2136) has shown that similar installations on the other four (4) chlorinators is desirable.

The work involved will be to improve and simplify the off-gas systems from chlorinators 1 through 4.

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