WORK PROPOSAL
WGK ANALYTICAL RESEARCH AND DEVELOPMENT GROUP

REPORT TO
D. K. Lynch
B. M. Cutchen
W. C. Engman
V. Brawley
W. A. Krulik
R. Blowers
File

TIATED BY	PHONE NO.	DATE SUBMITTED
NEIL THOMPSON	386	11/16/71

BUCT	DEPT. NO.	DEPT. CHARGE NO.
AROCLOR 1260	246	811.00

LE
COLOR PROBLEM in Crude 1260.

TEMENT OF PROBLEM OR INFORMATION NEEDED

Dept 246 is experiencing an unusual green coloration in the manufacture of crude Arochlor 1160. $FeCl_3$ is suspected as responsible and an analysis is needed to see if there are any differences between the present $FeCl_3$ and an older plant $FeCl_3$ sample.

TIFICATION (SAVINGS OR BENEFITS)

Elimination of a potential quality problem.

TO BE COMPLETED BY A.R. & D.

OBLEM NO.	ASSIGNED TO	ESTIMATED MAN DAYS	ESTIMATED COST	ESTIMATED COMPLETION DATE
H-1759	Wicht			
PORT NO.	CATEGORY	ACTUAL MAN DAYS	ACTUAL COST	ACTUAL COMPLETION DATE
&D 2042	I	5 hrs.	$60	11-16-71

APPROVALS

D GROUP LEADER	TSD GENERAL SUPERINTENDENT	
W. J. Hamer		

ULTS:

AN EMISSION SPECTROGRAPHIC ANALYSIS TO DETERMINE TRACE METALS CONTAMINATION WAS MADE ON A SAMPLE OF RECENT $FeCl_3$ AND A SAMPLE OF OLDER $FeCl_3$ TAKEN IN NOV. 1970. THE ELEMENTS DETECTED FROM THIS ANALYSIS ARE AS FOLLOWS:

NEW $FeCl_3$	OLD $FeCl_3$
Mn (TRACE)	Mn (TRACE)
Pb (TRACE)	Pb (NONE DETECTED)
Mg (TRACE)	Mg (TRACE)
Cu (TRACE)	Cu (TRACE)
Ni (TRACE)	Ni (TRACE)
Al (TRACE)	Al (NONE DETECTED)
Ca (TRACE)	Ca (TRACE)

THERE ARE APPARENTLY NO DIFFERENCES IN TRACE METALS CONTAMINATION THAT COULD ACCOUNT FOR THE GREEN COLOR THAT IS BEING EXPERIENCED IN THE PLANT.

(CONT. ON ATTACHED PAGE)

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IN PHYSICAL APPEARANCE THE NEWER CATALYST HAS MORE OF A REDDISH "OXIDE" COLOR THAN THE OLDER SAMPLE.

THERE IS A POSSIBILITY THAT THE GREEN COLOR COULD BE CAUSED BY FERROUS IONS, MANY OF WHICH ARE GREEN. THE FACT THAT THE GREEN COLOR CHANGES TO THE NORMAL BROWN ON STANDING, AS INDICATED BY NEIL THOMPSON, WOULD SEEM TO SUPPORT THIS IF THE CHANGE IS DUE TO OXIDATION TO FERRIC IRON.

M. E. Webb

LAB NOTEBOOK REF:

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