

PROGRESS REPORT

TECHNICAL SERVICES DEPT. - W.G. KRUMMRICH PLANT

JOB NO.

91370:3285

REPORT NO.

1 Final

DATE

12/22/65

W.G. KRUMMRICH PLANT

RESEARCH

GENERAL OFFICE

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* TO RECEIVE DETAIL SECTION

TITLE: AROCLOR: Redesign Chlorine Sparger

PERSONNEL: D. R. Middleton (J. R. Savage)

PROBLEM: Report status and job closing.

SUMMARY: The purpose of the new ring sparger (SK-3285) was to provide more uniform distribution of Cl_2 in the chlorinator. It was felt this might result in more stable Aroclor. The ring sparger was installed in NO. 4 chlorinator 10/64. At that time, no satisfactory method of analyzing its effect was available.

In May 1964, all the chlorinators were sampled for low-boiler content of the crude and a designed experiment was run to determine what chlorination variables effect this low boiler content. These tests showed no significant difference between No. 4 chlorinator and Nos. 1 and 5, which contained a pan-cake and a pipe sparger respectively. Chlorinators 2 and 3 produced crude with less low boilers than 1, 4, and 5 but further test indicated no correlation between these measurable low boilers and stability. (See TSD Reports 91370:3198 Nos. 2 and 3.)

In the latter part of May 1965, the test sparger was removed from No. 4 chlorinator. The higher pressure drop (necessary for uniform gas distribution) across this sparger slowed the chlorination rate in No. 4 chlorinator. Chlorination rate is the bottleneck when making 1248, 1254, and 1260.

DSW 311628

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December 22, 1965

Future Work

At this time, TSD recommends that any future work concerning chlorination techniques and kinetics be done by laboratory or pilot plant studies.

This job is closed.

D. R. Middleton

D. R. Middleton
Technical Services Department

DRM:gg

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APPENDIX A

December 22, 1965

JOB SEQUENCE

<u>Item</u>	<u>Date</u>
Job Opened	7/8/64
Work Order 5-5695 (\$350)	7/15/64
Project Package Submitted	7/17/64
Project Installed	10/15/64
Evaluation	5/65
Job Closed	12/23/65

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