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October 9, 1961

MONSANTO CHEMICAL COMPANY

ORGANIC CHEMICALS DIVISION

To the Director of Manufacturing
Organic Chemicals Division

Estimate No. 1119
Dept. No. 826.08
Anniston Plant, Anniston, Alabama

INSTALL SPECIFIC GRAVITY EQUIPMENT ON CHLORINATOR NO. 6

Capital Additions	$6,950
Repair Expense	$ 450
Total Appropriation	$7,400
Savings	None

DESCRIPTION

This project provides equipment to continually monitor the specific gravity of crude Aroclor production on the continuous Aroclor chlorination equipment. The equipment is adaptable to process control at a later date.

APPROVALS

Plant Manager	JRMW	10/13
Technical Production Manager	WBH	10/26
Director of Manufacturing	NLH	10/27

PCB-ARCH-EXT0377902

PRESENT SITUATION

At the present time four of the eight Aroclor chlorinators at Anniston are operated in a cascade continuous system. Controls for this system consist of operators catching gravity samples each hour and checking to assure we are in the correct specific gravity range. Variations in pressure, per cent air, and hydrogen in the chlorine feed to these units cause the chlorination rate to change. These changes cause the final product material to vary in the per cent chlorination.

It is proposed to install a constant monitoring radiation analyzer to measure and record the specific gravity of the crude Aroclor from the last stage of the continuous system. These alterations will permit tighter control of equipment to produce a more uniform, better quality product. It will also reduce the workload of the chlorinator operator, allowing time for other work.

A radiation analyzer has been selected for this job after checking with all major instrument companies for equipment to measure specific gravity. Instruments amounting to $4500, or 60% of this project installation cost, are guaranteed on a money-back basis by Industrial Nucleonics should they fail to perform satisfactorily.

NEED FOR PROJECT

The need for up-to-date in-process controls to insure the uniform quality of Aroclor 1242 is of prime inportance in maintaining a major portion of the Aroclor market. The controller is one step in a series of improvements to give this process proper control.

SAVINGS

No savings are claimed for this project. There will be a slight reduction in manpower requirements which will free the operators for other work.

SAFETY

The radiation system considered in this installation is an Accu Ray design. It is constructed with personnel safety and health as a first consideration. The radiation source is incapsulated, hermetically sealed, secured in a shielded housing of Meehanite and locked to all personnel except those authorized to check it. No other safety hazards are involved in this project.

AIR AND/OR STREAM POLLUTION

No change.

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STATUS OF PROJECT

General design data for this installation, along with piping and layout sketches are presented in TSD Report 729-22 (1), dated August 28, 1961. Firm quotes have been received on instrumentation equipment and delivery can be made approximately 12 weeks after orders have been placed.

RECOMMENDATIONS

Approval of Estimate No. 1119 is recommended.

B. O. Severson

C. M. Edelblut

Prepared by J. W. Molloy
/md

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