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Contract Number AT-33-1-GEN-53

MOUND LABORATORY

Operated By

MONSANTO CHEMICAL COMPANY

MIAMISBURG, OHIO

APR 16 1950

OSTI

M. M. Haring
Laboratory Director

ELECTRONICS ACCOMPLISHMENT REPORT

Classification . . . UNCLASSIFIED
authority of Paul B. Dowd see R/G #9- 4/21/71
by Alberta V. Weidner 4/23/71
Reviewed by C.W. Huntington 8/27/79

Date: October 31, 1949

Prepared By: J. W. Heyd
P. E. Ohmart

This document is
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James Kene (OSTI)
Authorizing Official
Date: 6-30-09

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ELECTRONICS SECTION

J. W. Heyd and P. E. Ohmart

ABSTRACT

Shipped to Scioto Laboratory:

- 3 Two-Input 3-wall Mixers, with scalars.
- 10 Switch Boxes (for selecting manual and electronic controls in P and E lines).

- 1 Pre-amplifier, Model AM-2, with Berkeley scaler.

Completed for Scioto Laboratory but not yet shipped:

- 1 Pre-amplifier, Model AM-2, on test.

Completed for Mound Laboratory:

- 6 Pulse Generators, Model PG-1-B, EO-508.
- 1 Induction Heater, Model HE-1, on test, with small modifications probable.
- 2 Scalers, N.I. and C. Model 161-G, modified for use with Four-Input Gamma Mixer, Model MX-1, and the combination tested and calibrated.

Under construction:

- 20 Alpha Monitors, EO-314 (20 per cent).
- 1 Underwater Electrometer (Electronic portion) for Scioto Laboratory (started).
- 4 Wiring of Quartz Fiber Balance, EO-610 (started).

Construction of a high voltage power supply for the Physics Section's mass spectrometer is nearing completion. The major problem on this supply was insulating the supply and its chassis from the rack; the chassis is 30 kilovolts above ground.

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An emergency lighting system was installed in E-107 which operates from the batteries in E-106 in the event of main power failure. The system merely provides sufficient illumination to turn off the high voltage power supplies so they will not be damaged when the power again comes on.

The Bradley counter is presently operating continuous-flow due to the failure of the solenoid valve in the gas line.

Two power supply troubles in the Browning Oscillosynchroscope have allowed very little use to be made of that instrument. A faulty condenser was replaced, but we have not received a replacement for a shorted low voltage supply transformer.

Erratic readings and improper zeroing of a "WD" Building flowmeter were caused by a very viscose sludge being in the pipes rather than oil.

A Micromax of range 0 to 4 pH was changed to range 2 to 12 pH for Group 27.

The modification of the automatic potential controllers used by Group 17 has been completed.

A set of experimental auxiliary junction boxes was installed for Group 17. This provides Group 17's Line 3 with parallel operation of manual and electronic potential control.

A suitable meter shunt was designed for Group 17 to be used in modifying the group's manual potential controllers. Pilot models of the shunt were constructed.

Extensive repair and modification was performed on the Jackson intercommunications system used by Group 15.

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Initial work has been carried out for the installation of an intercommunications system for Group 34.

Repairs were made on the intercommunications system used by Group 17.

New batteries and an illuminating lamp were installed in the electrometer used by Group 15.

Routine maintenance was performed on the electronic apparatus used by Groups 25, 24, and 31.

Routine counting included 9072 samples this month.

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