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H. Geisen

September 13, 1965

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Polymerizer Evacuation System, Buildings 111 and 121

The polymerizer evacuation system in Buildings 111 and 121 were installed in 1942. An investigation was made on the evacuation systems in these buildings and the results are as follows:

BUILDING 111 WEST SIDE

Duct work partially plugged and motor on the blower was turning in the wrong direction. The duct work was cleaned and the motor leads reversed.

The blower is now moving approximately 120 CFM at the polymerizer manhole with three hose stations in use. This is slightly under one air change per minute per polymerizer.

BUILDING 111 EAST SIDE

Anemometer readings indicate that the duct work to polymerizers 14, 15, 17, 18, 19, 20, 21, 22, 23, and 24 is partially plugged. Air to the other polymerizers is sufficient.

It is suggested that these ducts be cleaned in the same manner as the ducts on the west side of the building.

BUILDING 121 WEST SIDE

Anemometer readings indicate that the duct work to polymerizers 33, 34, 35, 36, 41, 42, 43, and 44 is partially plugged. The main duct is badly dented and there are several leaks in the branch lines due to the rusting. Also, it appears that there is water trapped in some of the branch lines.

It is suggested that the duct work be cleaned where possible and be replaced at the rusted out and badly dented places.

It might be advisable to install a larger horsepower motor and increase the blower speed in order to obtain more CFM for evacuation of the larger polymerizers.

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BUILDING 121 EAST SIDE

Anemometer readings indicate that the duct work is badly plugged. Also, there are two large holes in the main duct and several rusted out spots in the branch lines.

It is suggested that the duct work be cleaned where possible and replaced at the badly deteriorated sections.

It might be advisable to install a larger horsepower motor and increase the blower speed in order to obtain more CFM for evacuation of the larger polymerizers.

Presently all four evacuation systems are equipped with an American Blower #3, Type "V" blower to deliver 625 CFM @ 2 1/2" S.P.; these blowers are driven by a one horsepower, 1725 RPM motor.

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/sja

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