EFFLUENT AND EMISSION CONTROL

Control pollutant discharges from Monsanto operations so as not to endanger health and the environment.

PROGRAM

1. Maintain analyses as required by regulations and deemed prudent by Monsanto of plant liquid effluents and air emission sources. Review by end of 1983.

2. Maintain compliance with all applicable regulations and permits controlling effluents and emissions.

3. In the absence of regulation, or if a regulation is insufficiently stringent, control to levels judged adequate to protect health and environment.

4. Determine effluent and emission wasteloads from specific processes when required for:

   a. solution of current or prospective pollution control problems;

   b. development of process specific control technology;

   c. development of technology required for "pretreatment" before discharge to public sewer systems;

   d. establishing design standards for new plants, expanded capacity, or process improvements.

5. Review the chemistry and operating conditions of each plant/process and any new process after startup to confirm that no pollutant, in an amount having potential to endanger health or the environment, may have escaped detection by the effluent and emission analytical protocols utilized in (1) and (2) above. Complete worldwide by December 31, 1983.

STATUS/OBSERVATIONS

1. Foreign and domestic operations either have completed the analysis of wastewater effluents and air emissions or anticipate completion by the end of 1983. Seven plants have work remaining: U.S. 2; E/A2; ROW 3.

2. The need to acquire plant or new/existing process emission and effluent data has been incorporated into routine operating company and plant environmental program management.

3. More than 250 individual permit limit exceedances were recorded. In some cases, small fines have been paid. Regulatory agencies use permit exceedances as a trigger for possible enforcement actions. Such exceedances do not usually result in adverse environmental effects.

4. In some ROW operations, permit limits for certain parameters are exceeded, but compliance with these stringent requirements is often not expected by regulatory agencies. In such cases, the regulatory agencies rate Monsanto plants as the leader on environmental controls, and far better than other companies.

5. Seventeen (U.S. 8; E/A 2; ROW 7) plants reported specific air or water pollution controls which are not required by regulation. Examples include air monitoring for acrylonitrile at several locations, the maleic oxidizer for benzene control at J. F. Queeny, and numerous facilities at W. G. Krummrich to reduce air emissions.

6. Environmental reviews of domestic plants and processes are virtually complete. Work remains on three which are scheduled for completion by December, 1983. Seven E/A and five ROW plants/processes are being reviewed to determine if U.S. analysis applies. The reviews identified some potential pollutants (e.g. nitrosamines, dioxins, azoxy benzenes). Follow-up analysis concluded that there are no major concerns in plant emissions or discharges.

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