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WORLDWIDE ENVIRONMENTAL PROTECTION
GUIDELINE NUMBER 1

EFFLUENT AND EMISSION CONTROL-Control pollutant discharges from Monsanto operations so as not to endanger health and the environment.

PROGRAM

1. Maintain both regulatory and Monsanto required analyses of plant liquid effluents. Review periodically, but no later than 1983.

2. Maintain both regulatory and Monsanto required analyses of plant air emission sources. Complete first round of analyses by January 1, 1982.

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

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

5. 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.

6. 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, 1982.

STATUS/OBSERVATIONS

1. Foreign and domestic operations have either already completed the required analysis of wastewater effluents and air emissions or anticipate completion within six months of the guideline deadlines.

2. The review of the overall environmental status is not as far along. However, this cannot be completed until all the air and water data have been completed.

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3. From surveys, it was determined that the required air and water sampling has generally been completed. The area in need of greatest effort is air sampling at foreign locations.

4. a. With the exception of three MICC locations where no analyses are required, all Monsanto locations, foreign and domestic, provide at least some lab support for waste analysis.

   b. In general, it appears that for locations having on-site lab support, 85-90% of the required analyses are performed in-house.

   c. The EASC is used by all operating units. The survey was not designed to tell how many locations (plants) use the EASC.

   d. Sixty-four percent (64%) of the foreign locations require analytical services.

      Fifty-four percent (54%) of the domestic locations require analytical services. (Bottle plants and small textile operations drive the percentage down.)

5. How the terms "required" and "critical" are interpreted can make a significant impact on the workload.

6. The program does not require the expenditure of rather extensive resources for analysis of wasteloads from each and every process, unless there is a specific problem or a defined need. The general approach being utilized for most plants is to analyze the plant effluent(s) first and then decide from the results obtained whether any specific process waste stream needs to be examined. Generally speaking, the organic chemical loadings of the plant effluent(s) have been found lower than earlier expectations; conversely, metals in the effluent(s) have been found to be higher than earlier expectations.

7. There is likely to be a very wide range of what is "complete" as far as data acquisition and analysis is concerned.

8. Items (1) and (2) can shortly be eliminated and (6) reworded to some kind of evergreen statement like "periodically review...." Review requirements for new processes after startup should be included also.

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