Approved by
CAC: 11/10/81

WORLDWIDE ENVIRONMENTAL PROTECTION
GUIDELINE NUMBER 2

HAZARDOUS WASTE MANAGEMENT-Minimize the quantities of hazardous waste generated and select treatment/disposal taking into consideration: cost effectiveness, compliance with regulations, risks evaluation, and long term product strategies. Establish Monsanto monitored and/or controlled disposition of all solid wastes. Reduce Monsanto's dependency on deep well injection of wastes and maintain surveillance of secure operation and performance of existing wells.

INTRODUCTION

The general order of preference for treatment/disposal of hazardous waste pending completion of a Corporatewide Hazardous Waste Management Study will be:

1. Biological, chemical, or physical treatment of the waste to convert it to usable or innocuous material.

2. Thermal destruction or separation of hazardous constituents in the waste with energy or raw material recovery where feasible.

3. Deep-well disposal, limited to individual process waste streams approved by the EPC.

4. Ocean disposal.

5. Land disposal of wastes not amenable to practical alternatives.

The general order of preference for business decisions for Monsanto controlled or monitored disposition of hazardous wastes pending completion of a Corporatewide Hazardous Waste Management Study is:

1. Monsanto owned and operated facilities at which only our wastes would be treated, stored, or disposed.

2. Joint venture with others to satisfy a mutual, non-profit industrial need.

3. Contract management of our waste with reputable firms.

4. Commercial venture only if it is compatible with Corporate objectives.

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PROGRAM

1. Complete Phase II of the Hazardous Waste Management Study by July, 1982.

2. By January, 1983, have an approved corporatewide hazardous waste management plan that is in accord with the guideline.

3. Applicable portions of current programs under former guidelines number 2 and number 4 will continue until the approved corporatewide hazardous waste management plan is in effect.

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STATUS/OBSERVATIONS

I. *Solid Waste Control-Establish Monsanto monitored and/or controlled disposition of all solid wastes.

A. U. S. LOCATIONS

- Waste characterization/analysis programs are in place for all Monsanto U. S. sites.
- All U. S. wastes disposed under written contract or purchase order.
- Corporate contracts are under negotiation with six U. S. disposal firms presently handled by purchase order.
- Inspection/monitoring of off-site disposal locations as appropriate. Routine schedule of inspections not established.
- Disposal site operators provided with relevant information on individual wastes properties and safe handling practices.

B. EX-U. S. LOCATIONS

- Waste characterization/analysis programs are in place for all locations.
- All ex-U. S. locations dispose of hazardous waste under written contract agreement or negotiation/agreement on a case-by-case basis.
- Non-hazardous solid wastes are disposed of at local government operated landfills and/or under written contract agreements with private disposal firms.
- Inspection/monitoring of off-site disposal locations as consistent with local laws/regulations on an established schedule.
- Disposal site operators provided with relevant information on individual waste properties and safe handling practices consistent with local environmental laws/regulations.

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II. *Deep-Well Injection-Reduce Monsanto's dependency on deep well injection of wastes and maintain surveillance of secure operation and performance of existing wells.

- No deep-wells operated and none planned at ex-U. S. locations.
- Eight deep-wells in operation at four U. S. plant locations plus two spare wells presently approved for installation.
- Existing and planned flows into the U. S. location deep-wells total 3900 gpm.
- Alternate disposal technology is known and under on-going development work for all processes.
- Off-site deep-well disposal is employed for several process waste streams on a non-routine basis.

*Applicable portions of current programs will remain in effect until an approved corporatewide hazardous waste management plan is in effect.

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