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Possible B R T Questions and Suggested Answers

MONSANTO'S ENVIRONMENTAL POLICY.

Q1. WHAT IS MONSANTO'S ATTITUDE TOWARDS ENVIRONMENTAL CONTROL?

A1. Our primary concern is for the public's safety. Consequently, we believe that environmental control must be considered as part of the cost of doing business. This means that when we propose building a plant, the cost of preventing possible pollution is taken into account before permission is given to build.

Q2. WHAT IS ENVIRONMENTAL CONTROL COSTING MONSANTO?

A2. Currently, Monsanto is spending $ 110 million installing and operating pollution abatement equipment at our plants throughout the world. Twelve per cent of this is being spent at plants in Europe and some at our plant here. Our BF 1,00,000,000 effluent treatment plant here is just one of 230 separate environmental control projects currently scheduled by Monsanto. Worldwide, we employ 175 people working full time on anti-pollution work. Here at Antwerp we employ people in this capacity.

Q3. DOES MONSANTO HAVE AN ENVIRONMENTAL CONTROL POLICY AND IF SO HOW DOES IT OPERATE?

A3. Yes we have an environmental control policy which operates throughout the Company all the way down the line from Board level to plant operations. A Monsanto vice-president and board member (H. Harold Bible) has special responsibility for environmental matters. He coordinates the work of the Company's Environmental Control Committee which meets monthly to consider potentital environmental problems and formultates policies aimed at overcoming these problems. This Environmental Control

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Committee was established in 1966.

Here at Antwerp it is my personal responsibility to ensure that our operations do not endanger the environment.

Q4. IS MONSANTO'S COMPETITIVE POSITION HARMED BY THE COST OF POLLUTION CONTROL?

A4. If other companies had lower standards or did not have to bear this expense, then the cost of our environmental protection could place us at a competitive disadvantage. This is one reason why environmental problems should not be controlled piecemeal.

Q5. WHAT OTHER EFFECTS DOES THE COST OF POLLUTION CONTROL HAVE?

A5. The cost of protecting the environment is an increasingly significant factor in deciding whether to build a plant in the first place. Some companies have had to close plants because the cost of pollution control made them unprofitable.

Greater screening of products before they are marketed will result in cost increases and a slow down in the introduction of new products.

Q6. HOW, THEN, DOES MONSANTO THINK ENVIRONMENTAL PROBLEMS SHOULD BE TACKLED?

A6. Society - government, industry, science and citizens - must decide the quality of the environment we want at a price we are willing to pay. We should be working towards a consensus of environmental objectives in order that sensible and reasonalble laws can be drawn up which are based on proper priorities. What we need are soundly conceived, good environmental laws that can be enforced.

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Q7. HOW DOES YOUR EFFLUENT PLANT OPERATE?

A7. Our effluent treatment plant not only renders wastes from our chemical processes harmless but can also cope with accidental spillages. It keeps our plant well within current effluent discharge regulations for industry here.

Waste water from several plant operations is automatically treated with neutralising chemicals and then fed into two large treatment basins each holding 17,000,000 litres of water. Once there, the major part of solids in the water are removed. Any small particles remaining in the effluent stream are removed with a mechanical filter downstream of the two settling basins.

Q8. WHAT IS THE COST OF THE EFFLUENT PLANT?

A8. Total cost is BF 100,000,000 ($ 2MM). The treatment plant itself cost BF 50,000,000 and an equivalent sum was spent on ancillary equipment. Running costs will amount to BF and we employ people operating the plant.

Q9 HOW DO YOU DISPOSE OF THE REMAINING EFFLUENT SLUDGE AND WHAT IS THE NATURE OF THIS SLUDGE?

Q10 HOW DO YOU DISPOSE OF SOLID WASTE AND WHAT IS THE NATURE OF THIS WASTE?

Q11. HOW DO YOU PREVENT ATMOSPHERIC POLLUTION?

A.11

PRODUCT QUESTIONS.

PCBS

Q12. DO YOU MAKE PCBs AT ANTWERP?

A12. We do not make PCBs at Antwerp or indeed anywhere on the Continent. Our sole manifacutring plant is in the U.K. at Newport.

Q13. DO YOU HAVE ANY PCBs ON THE SITE HERE AT ANTWERP?

A13. Yes some PCB material is imported for re-export to Germany. None goes from this plant to customers in Belgium.

Q14. WHAT IS THIS PCB MATERIAL USED FOR?

A14. It serves an essential safety function as a fire resistant hydraulic fluid in underground mining equipment.

(If pressed on this point add : At present there is no alternative product approved for this essential safety function. However, we hope to introduce an approved non PCB substitute for this particular application shortly).

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PCBS

Q15. WHY DID MONSANTO GET OUT OF PCB VOLUNTARILY?

A15. We are not completely out of PCBs. We are still making and supplying PCBs for controllable applications in sealed systems. These are mainly electrical transformers where the PCB containing fluid eliminates the risk of explosion.

Q16. WHAT, THEN, HAS MONSANTO DONE TO CONTROL PCBs?

A16. We have voluntarily stopped sales to non-controllable applications. The use of these products falls into two areas. Those applications which are controllable and those which are not, applications where it is not possible to prevent leakage into the environment.

Among controllable applications are electrical uses in such cases as transformers where the product is, of necessity, absolutely sealed in a metal container. We will continue to supply these applications. Non controllable applications include such things as plastic and industrial paint formulations. We have ceased, as a worldwide policy, to supply these applications where it is not possible to prevent leakage into the environment. In many cases we have already introduced non-PCB substitute products.

Q17. WHEN DID MONSANTO DO THIS AND HOW MUCH HAS IT COST THE COMPANY?

A17. In Europe, we began phasing out of non controllable applications more than a year ago (March 1, 1971). We have now completed our programme of withdrawal from non controllable applications. The cost has been a substantial commercial sacrifice.

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PCBS

Q18. WHAT ABOUT COMPETITORS?

A18. I cannot speak for our competitors. But I understand that they are reviewing the situation and are not likely to take advantage of our action.

Q19. WHAT ABOUT LEGISLATION?

A19. Legislation is, of course, a matter for the Government. But we do feel that with rigid control over where the product goes, how it is handled and disposed of, the safety properties of the product can continue to serve industry and the environment can be protected without recourse to legislation.

Q20. WHAT ARE PCBs?

A20. PCBs are a complex family of chemicals. They have exceptionally good fire-resistant properties.

Q21. WHAT, THEN, IS THE PROBLEM?

A21. Let's make it clear straight away that in their present quantities in the environment they are relatively harmless to man. On the basis of current levels of PCBs found in fish it would take a man several thousand years to acquire a lethal dose. And remember, we have been manufacturing these chemicals for upwards of 40 years without experiencing any adverse effects.

The problem is one of persistence rather than toxicity. Any chemicals, if allowed to build up to a sufficiently high level, becomes a poison. PCBs are no exception. Through our own work, and that of many other people in this field, we are convinced that PCBs would build up in the

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environment if no action were taken to prevent it. This is something we are not prepared to risk.

Q22. HAVE YOU ANY OTHER CHEMICALS WHICH COULD CAUSE SIMILAR PROBLEMS?

A22. I am not in a position to answer this question specifically, but as a matter of policy we now look at not only the toxicity of new chemicals but also at their persistence. I think any responsible company will now look to this question of persistency to see if there is a possibility of new products eventually posing an environmental hazard.

HERBICIDES

Q23. DO YOUR AVADEX HERBICIDES MADE AT ANTWERP POSE ANY ENVIRONMENTAL PROBLEMS?

A23. Like all Monsanto presticides, the Avadex products break down rapidly and do not persist in the environment. All Avadex products have a very low order of toxicity, are used at low rates per acre and are readily broken down in the soil and crop plant. As a result they disappear in a short time.

The Avadex products are used to control wild oat weeds in crops such as wheat and barley. They are one of only two chemical compounds which control these weeds.

DEFOLIANTS

Q24. DOES MONSANTO MAKE DEFOLIANTS?

A24. No. Monsanto has never made nor sold defoliants in Europe.

A 24.

Production of defoliants in the United States ceased in 1969.

RUBBER CHEMICALS

Q25. DOES SANTOCURE POSE AN ENVIRONMENTAL PROBLEM?

A25. Santocure is a chemical used in the processing of rubber and, as such is used in controlled conditions. It poses no environmental problem at Antwerp as any waste from the production plant is neutralised by our effluent treatment system.