

BACKGROUND FACTS AND FIGURES
ON MONSANTO HEALTH & ENVIRONMENTAL PROGRAMS

Monsanto Company defers to no person or group when it comes to concern for the health and welfare of its employees or the quality and safety of its products. Major examples of Monsanto's commitment to health and safety include:

- Monsanto Environmental Health Laboratory, opened in 1978 at a cost of \$12 million. The sole purpose of this facility is to test the medical and environmental effects of existing and potential Monsanto products, raw materials and chemical intermediates to ensure that they can be used safely and that they are effective and environmentally acceptable.
- Approximately 850 professional managers, scientists and technicians are engaged full-time in work designed to ensure worker, product and environmental safety. Their job is not to alibi away problems, but to detect them promptly and recommend approaches to solutions.
- In 1978 alone, Monsanto expenditures for its ongoing health and safety programs were nearly \$200 million.
- Monsanto has had an Environmental Policy Staff operating at the highest corporate level since mid-1977. It is responsible for managing the impact of the company's materials on the individual worker and the environment.
- Monsanto, on its own initiative, has developed and has in place elaborate devices to detect the presence of chemicals in the workplace.
- The company advises its customers carefully on the proper use, shipment and disposal of chemicals so that they can better discharge their responsibilities.
- Monsanto has mounted an ambitious five-year program to finance the academic training of future toxicologists to help alleviate the present acute shortage.
- The company was instrumental in founding the Chemical Institute of Toxicology (CIIT), which does long-range testing of commodity materials used throughout industry, as well as basic research in problem areas like carcinogenesis.

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- Monsanto is setting up a comprehensive, computerized system to monitor worker health and environmental exposure within its operations.
- The company sponsors the "Edgar Monsanto Queeny" safety award which is conveyed annually to the industrial safety engineer who in the opinion of the American Society of Safety Engineers (ASSE) has made the greatest contribution in the field of occupational safety and health.
- In the life sciences, Monsanto is funding several major high risk research programs aimed at finding long range solutions to many of society's problems, particularly in the areas of food and health.
- Monsanto is half-way through a 12-year joint biomedical project with Harvard Medical School involving basic research aimed at helping better understand how living cells function.
- The company's own internal biomedical research efforts have produced two new drug candidates that are in early clinical trials in humans -- one is designed to stimulate the body's own ability to combat a variety of diseases including some forms of cancer; the other is a cholesterol-lowering agent which might be of value in treating coronary artery disease.
- Monsanto and its philanthropic arm, "Monsanto Fund," annually contribute vast sums of money to worthy activities in the fields of health and welfare, public and private education and cultural and civic betterment. In 1978, total corporate and Fund philanthropy was \$5.7 million.
- Monsanto employees' voluntary contributions to "United Way" fund drives are traditionally among the largest in the local communities. In 1978 Monsanto employees pledged over \$2 million to United Way campaigns across the country.

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Assembled by D. R. Bishop
Corporate Public Relations
July 16, 1979

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Q & A, NITRO HEALTH STUDIES

- Q1. There are reports that Nitro workers suffer high rates of heart disease and nervous disorders. What do your medical records reveal about this charge?
- A1. Dr. Richard Wallace of Nitro has been the plant physician for more than 25 years and he has not seen what he would consider to be an abnormal rate of those symptoms or problems, based on being involved in and examining the people over that period of time. A detailed Monsanto study of all available health and work records now is underway and will give the most detailed picture of the work environment ever attempted.
(SEE PREPAREDNESS STATEMENT FOR FURTHER DETAIL.)
- Q2. How does Monsanto justify continuing the manufacture of 2,4,5-T until 1969 when workers continued to contract chloracne?
- A2. Dioxin was not chemically identified until 1957 and, of course, its relationship to chloracne was not established until that time. However, following the 1949 incident, Monsanto revised its 2,4,5-T process, instituted additional safety and industrial hygiene practices and later built an entirely new unit for the manufacture of the herbicide.
- Q3. Chloracne often is a disfiguring ailment. What special compensation did Monsanto provide to employees suffering from this skin condition? If no special compensation was provided, why wasn't it?
- A3. Monsanto provided, at company expense, special care and treatment for those individuals who were affected by chloracne. In addition, the 2,4,5-T operation at Nitro became a premium pay department. This applied not only to plant operators but also to warehousemen who handled the product and laboratory people involved in 2,4,5-T analyses.
- Q4. In several instances, persons contracting chloracne suffered from significantly darkened skin pigment. Was special compensation provided for those employees? If not, why not?
- A4. The most severe problem that we had with skin pigmentation related to one of the individuals that had the most severe case following the 1949 incident. It was believed in the early 50's that the proper care and treatment of chloracne, like adolescent acne, was to treat it with ultraviolet light. It later was learned that ultraviolet light causes the darkening of pigment in chloracne cases. Fortunately, this condition was not permanent and eventually cleared. No special compensation was provided for this individual.

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- Q5. Some employees at Nitro still show signs of chloracne. Can you prove that this condition isn't being caused by current manufacturing conditions?
- A5. The only employees who occasionally still show signs of chloracne are those who worked in or around the 2,4,5-T operation. There is no medical evidence that employees hired after Monsanto suspended 2,4,5-T manufacture in 1969 have ever contracted the skin ailment.
- Q6. There have been news stories in the Charleston media of one employee who has suffered from continuous skin ulcers. Monsanto's position is that chloracne is a treatable dermatitis condition. Doesn't this employee's case suggest that the ailment is much more severe than Monsanto is willing to acknowledge?
- A6. Notwithstanding media reports, privacy requirements forbid our discussion of a specific employee's health record. We can state, however, that the extensive medical literature compiled on health effects of dioxin exposure does not point to skin ulcers as a medically established or accepted effect.
- Q7. Monsanto apparently conducted PAB exposure tests on dogs in the early 1950's and found that the chemical caused bladder tumors. There must have been a suspicion that PAB caused tumors in humans for you to conduct such tests. Why wasn't manufacture of PAB at least temporarily suspended when it first became evident to you that the product was a carcinogen?
- A7. The fact that bladder tumors show up in dogs does not necessarily mean that they will show up in humans. However, once human concerns appeared, we moved to alter the PAB process and instituted special safety precautions in the operating techniques and handling of PAB. These included equipment changes and other controls, and issuing special clothing. After having done all of those things, we concluded that potential worker exposure was still unacceptable so we permanently ceased the use and handling of PAB. We consider our total actions to be socially responsible, particularly in light of the fact that the PAB experience happened 25 years ago.
- Q8. Following the animal tests, Monsanto continued to manufacture PAB for a period of somewhere between 12 and 18 months. How do you justify continuing to produce the product in the face of strong evidence that it was a carcinogen?
- A8. The previous answer details Monsanto's actions associated with PAB. It should be re-emphasized that the precise relationship between animal tests and human effects still is not established in medical and scientific circles.

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- Q9. Monsanto reportedly continues to pay for the medical expenses of employees suffering from PAB-related health effects. Why hasn't the company paid employees and their survivors special benefits in addition to medical costs?
- A9. Today, employees who suffer a work-related illness receive workmen's compensation payments. In prior years, when only work-related injuries were covered, Monsanto provided the widows of employees whose deaths were related to bladder tumors a special benefit based on whatever the worker compensation payment would have been at the time of the employee's death. The survivor is entitled to that weekly compensation for life. So we have supplemented the income of widows of those who have died from PAB complications in that fashion.
- Q10. It's been reported that there is a wide variance in the extent of benefits being paid widows of deceased workers. How do you justify these inequities?
- A10. This represents a misunderstanding of what benefits were paid and are being paid. Special benefits provided to employees who suffered PAB-related health effects, or their survivors, are based on the time of retirement or death. Thus, payments differ according to the date of the claim, as they do with all such public and private insurance plans -- Social Security, private pension plans, workmen's compensation, etc.

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Monsanto

JUL 5 1979

FROM
NAME-LOCATION-PHONE:

D.R. Bishop - A3NB

DATE : July 5, 1979

SUBJECT : Nitro Q&A Suggestions

REFERENCE :

TO : P.R. Wilkins
1650

cc: C.F. Callis - B2SA
F.J. Holzapfel - B2SB
W.J. McCarville - A3NC
J.E. McKee - A3NB
F.C. Meyer - A2SA
J.T. Nolan - D1A
P.S. Park - E2NE
R.M. Scott - Nitro/1670
E. Tillman - A2SB

I have reviewed the Q&A material you circulated for comment and suggest the following changes:

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- A1. Dr. Wallace has been the plant physician for 26 or 27 years and he has not seen what he would consider to be an abnormal rate of those kinds of symptoms or problems, on the basis of being with and involved in and examining the people over that period of time. We should point out that while all employees are offered periodic physical examinations at their individual discretion, physical examinations are not mandatory nor can they be. Obviously we can't say with certainty that our plant physician has been able to follow the medical history of every Nitro plant worker.
- A2. We did not recognize that chloracne was related to dioxin exposure until dioxin was chemically identified in 1957. Beyond that, scientific and medical evidence available at that time did not suggest that the chloracne cases we had across those years after the 1949 incident were of such significance that it wasn't an acceptable practice to continue production.
- A3. Monsanto provided, at company expense, special care and treatment for those individuals who were affected by chloracne. In addition, the 2, 4, 5-T operation at Nitro became a premium pay department. Not only personnel who operated the 2, 4, 5-T plant but also warehousemen that handled 2, 4, 5-T and laboratory people that analyzed 2, 4, 5-T all got a 4¢/hour premium for handling the product. So there was that kind of special compensation.
- A8. (I would suggest that we respond to this question in much the same way as we do in A7, with the following addition): We sincerely regret that some of our employees have endured untoward suffering from exposure to PAB. The fact is we didn't know in 1950 what we know today. We were guided by acceptable industry/medical practices of the time. Virtually any practice considered acceptable 25 years ago would be viewed as rather primitive by today's standards.

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