

5/17/79

DRAFT:
QUESTIONS AND ANSWERS

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. 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.
- Q2. How does Monsanto justify continuing the manufacture of 2, 4, 5-T until 1969 when workers continued to contract chloracne?
- A2. We did not recognize that chloracne was related to dioxine exposure until dioxine was chemically identified in 1957. Beyond that, from a pure management standpoint, we did not not feel that the chloracne cases that we had across those years after the 1949 incident were of such significant concern medically that it wasn't an acceptable practice for us to continue. We didn't believe that it was all that much of a problem.
- 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 did not provide any special compensation for individuals who were affected by chloracne other than to see to their care and treatment. The 2, 4, 5-T operation at Nitro, because of the emotion associated with the operation of that unit and the chloracne, 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 2, 4, 5-T. So there was that kind of special compensation.
- Q4. In several instances, persons contracting chloracne suffered from significantly darkened skin pigment. Was special compensation provided for those employees? If not, why not?

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- 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. Unfortunately, chloracne is a different kind of thing and what happens if you get lots of exposure to ultraviolet light is that the skin pigment darkens. So the treatment did not do any good and actually created a problem, though it was believed to be the proper technology at the time.
- 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. Monsanto can probably prove that on the basis that the people who show up occasionally in the Dispensary with a chloracne spot are people who worked in or around 2, 4, 5-T and not people who have come into the plant in the last eight or nine years and have never worked in or around 2, 4, 5-T.
- 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.
- 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?

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- A7. When Monsanto recognized that it had a potential problem in humans, the technology of the times said the fact that it shows up in dogs does not necessarily mean that it will show up in humans. Subsequent to that, we did find some human problems, so we did move immediately to make changes in the operating techniques and the handling of PAB as a raw material, in the exposure levels, by instituting equipment changes and other controls, and issuing special clothing, all of the things that we knew to do to protect the workers. After having done all of those things, we still found the potential worker exposure, plus the severity of the risk of any kind of an exposure regardless of what our industrial hygiene effort might be, to be too great and we shut production down.
- 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. We believed that we would be able to adequately change the operation and tighten the system so that exposures could be reduced to a no-effect level and the operation be made completely safe. After having done all of the things that we knew to do, we still weren't sure the operation was safe, so it was shut down.
- 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. Monsanto has paid widows, where an employee has died of problems related to bladder tumors, a special benefit based on whatever the workers compensation equivalent payment would have been at the time of the employee's death. The survivor will draw that weekly compensation for life from the point in time of her husband's death. So we have supplemented the income of widows of those that have died from PAB complications in that way.

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Q10. Some retirees and survivors of employees who worked with PAB reportedly received extremely modest pension or death benefits before the company acknowledged that PAB was a carcinogen. Have those benefits been revised upwards and if not, why not?

A10. I don't know that I know of any case like that.

Q11. Why does Monsanto continue to manufacture products that give off noxious fumes to the annoyance of community residents and passerbys on Interstate 64?

A11. The problem with odors, and I think that's the point of reference to that question, is a very challenging one. If you think about it in terms of having 100 coffee pots in a room and you put an individual in the room who dislikes the odor of coffee, you have an odor problem. If you unplugged 99 of those coffee pots and you put the same individual in the room, you still have an odor problem. Maybe it is 999 or 9,999 but if you have one individual that objects to a particular kind of odor, you have an odor problem. We handle some materials in this plant with odor threshold, the point at which the human sense of smell begins to pick up odor, of less than 25 parts per billion and it's just very difficult and by present technology, nearly impossible to be able to always contain a material that has that kind of an odor threshold.

Q12. Nitro's MHA manufacturing operation reportedly uses highly toxic raw materials in a manufacturing environment that is described as antiquated. We understand that you are upgrading that unit. Knowing the dangers inherent in utilizing old equipment, how come it has taken this long to improve the safety conditions of that unit?

A12. The safety conditions of the MHA facility more than satisfy minimum requirements for any of our operating units. They do not completely meet the level of safety performance that Monsanto would like to have. We have embarked on an improvement program wherein we will significantly upgrade that facility and move the handling of the toxic materials into an open air structure as opposed to an enclosed building and make a number of other changes at the same time.

I think the other thing that needs to be said is that the safety performance of that department as a single unit within the several that Nitro has, is one of the best overall safety performances that we have anywhere in the plant. And that is

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A12. (continued)

because the people that operate that unit recognize the hazards of the material that they work with, they understand those hazards, they are properly trained and skilled as to how to control and handle those materials. They do their job very well and very properly and nobody gets hurt as a result of that.

Q13. There are some highly toxic and volatile raw materials stored in tanks at the plant site near the well-traveled roadway leading to the plant. Doesn't this endanger passerbys as well as people going to and from your plant?

A13. No, in our judgement it does not. The materials that are stored in the tanks to which you refer are stored in systems that have been specifically designed considering all of the safety precautions that are necessary to very safely store those materials. If there were any kind of an incident associated with those tanks, those tanks are vented, not to the atmosphere, but to a flare, which will burn the material to carbon dioxide and water vapor; in the case of cyanide, to water vapor and nitrogen oxide, and dispose of them as harmless materials by that mechanism as opposed to venting them into the atmosphere and letting an individual standing somewhere or driving by be exposed to toxic materials.

Q14. Why aren't all these dangerous materials stored in some out-of-the-way location on the plant site under special safety conditions? An explosion or release would not only endanger Monsanto employees but also employees of the nearby FMC plant and local residents. Is anything being done about this problem?

A14. We feel that this plant has been built adequately, and that proper consideration has been given to the location of storage facilities for hazardous materials as well as the specific design for those storage facilities and all of the technology that can be brought to bear to insure the safe handling and storage of any material, whether it be hazardous or not, has been brought to bear as the plant has been built. Anytime we build anything, we are obligated to go through a number of safety design reviews with the advice, counsel and consent of our corporate safety and property protection experts to insure that we utilize all of the proper safety procedures and precautions that we know of to insure a safe facility.

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