DRAFT

AUGUST 14, 1987

REVISED QUESTIONS FOR KEARNY GROUNDWATER CLEANUP AND PCB ISSUE:

1Q: You announced last November that you had submitted a remedial action plan to the N.J. Department of Environmental Protection. Nine months have passed. Why have you waited so long to begin?

1A: We haven't. As soon as we submitted the plan to the N.J. D.E.P., we began getting ready for implementation. The organic layer recovery system required considerable design and engineering work. It will be operational this fall.

2Q: How concentrated are the PCB on the property?

2A: The average concentration of PCBs in the contaminated area is approximately 100 PPM. The highest concentration, found at one location in the soil, was 123,000 parts per million at two to four feet below the surface.

3Q: How much is considered dangerous?

MCO 7640173

3A: This is a complex question. More important, however, is that there is no risk of exposure to employees or the general public from

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the PCBs contained on this site. A review of PCBs by Dr. Renate Kimbrough from the Center for Disease Control "Annual Reviews of Pharmacology and Toxicology" Jan. (or Feb.) 1987 states, "When humans were exposed only to PCBs or PBBs, observed acute effects have generally been minor. So far, no significant chronic health effects have been causally associated with exposure to PCBs or PBBs."

A recent EPA guideline suggests 25 to 50 parts per million to be acceptable, however risk of exposure on our property is almost non-existent because PCBs are relatively immobile in soil, are virtually insoluble in water, and, in this case, are buried either under a layer of concrete, or gravel.

4Q: How much will the cleanup process reduce the concentration of PCBs?

4A: We have two separate matters here. First we will remove the layer of organic matter floating on the groundwater. Organics consist of any carbon based molecule, and in this case, refer to compounds similar to those found in gasoline, various fuel oils, and household cleaning fluids. The groundwater in question is not used for any private or public drinking water nor the plant's own drinking water supply. The cleanup will be performed by removing the organics and treating them according to DEP guidelines.

MCO 7640174

The other matter is the PCB presence in the contaminated soil. The PCBs are bound tightly to the soil, are virtually insoluble in water and do not leach from the contaminated area. Thus they pose no

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threat to employees or the community. The plant plans to leave them undisturbed for they are essentially contained and continue to monitor the site. When the manufacturing unit shuts down or is to be replaced with an updated facility, requiring the current facility to be dismantled, the PCBs will be dealt with applying the best and most appropriate technology available at that time and in compliance with N.J. DEP standards of the day.

5Q: Will the groundwater cleanup remove any PCBs? What will you do with them after they're removed?

5A: The cleanup process is to remove organics from the groundwater on our site. We don't expect to find PCBs in the groundwater. If any are found, they will be separated from the water, treated along with the organics and incinerated according to accepted procedures.

6Q: Will any of the containment and treatment procedures for cleaning the groundwater disturb the PCBs in the soil?

6A: Groundwater treatment should have no affect on the PCBs because they are bound to the soil. If there are any minute quantities of PCBs found in the water, possibly attached to suspended dirt particles, they will be separated along with the organics and incinerated according to accepted disposal procedures.

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7Q: Why did you use PCBs in the first place?

7A: For many years, PCBs were used as a heat transfer fluid and electrical equipment insulator. They proved to have remarkable flame resistant properties and in many cases, were the preferred or required material whenever fire risk was a concern. Use of PCBs undoubtedly saved many lives from injury by fire.

Years ago, Monsanto used PCBs in a heat transfer fluid in one of our processes. By the 1960s, the PCBs became unusable and were landfilled which was the accepted industrial practice at the time. PCBs were not known to be an environmental issue at that time.

8Q: Don't PCBs cause cancer?

8A: I'm not an expert in that area but according to public reports of health effect data by respected medical authorities, there is no scientific evidence linking occupational or environmental exposure to PCBs to cancer in humans. If you would like to talk with someone at Monsanto who can answer that question in detail, I'll be glad to arrange that.

9Q; What did you replace them with? MCO 7640176

9A: The PCB-containing heat transfer fluid was replaced with Therminol 66, a widely used industrial heat transfer fluid developed to replace

PCB-containing fluids. Therminol contains partially hydrogenated terphenyls which is a safe material when used according to label instructions.

10Q: How much will this ongoing cleanup project cost the company?

10A: Initial cost will be in the area of $300,000, with ongoing operating costs of $100,000 per year.

11Q: If there are PCBs under the plant, can they get into the plant through cracks in the concrete or foundation material?

11A: PCB molecules are non volatile so they cannot transform into a gas and escape into buildings. Beyond that, they bind tightly to soil and therefore don't move underground.

12Q: Have any employees suffered any harmful effects from having PCBs in the vicinity?

MCO 7640177

12A: No. Monsanto's environmental health physicians regularly examine employees and review records to detect any abnormalities. As expected, no health problems associated with PCBs have been found. Again, I must emphasize, that on this site, neither the community nor employees are exposed because the PCBs are buried and unlikely to move or dissolve.

If you would like more information about the health assessments conducted regularly at this plant, I'll be glad to refer you to our senior occupational medical physician, Dr. James Spraul.

13Q: When will the groundwater cleanup actually start?

13A: The equipment and all preparations are expected to be complete by late summer. We expect the equipment to be operational by this fall.

14Q: When will it be completed?

14A: We're not certain. We estimate the pumping, filtering and treating process to take some time. We will continue this process until no more organics are found in the groundwater. Beyond that, we will continue to sample and monitor the wells, and commence the process again if any organics reappear.

15Q: How can you be sure that the organic layer won't move to the river?

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15A: An environmentally engineered, 500-foot-long baffle drain system will provide a barrier between the area of contaminated water and the river. This system will prevent any possible migration of the organic material from escaping to the river.

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16Q: If you're going to leave the PCBs where they are, how often will you do groundwater testing?

16A: We will conduct a groundwater sampling twice a year.

17Q: What will the groundwater samplings test for?

17A: As mentioned, groundwater will be tested twice a year from the several monitoring wells and from the shallow baffle drain system.

The monitoring wells are used to obtain information on the groundwater coming onto the plant site, in the plant, and moving off the plant grounds. We will sample this water for priority pollutants, and in particular, analyze for those chemicals common to our operation (which are similar to those found in gasoline, fuel oils and ordinary household cleaning fluids) as well as PCBs.

The shallow drain system is used to collect any organic materials floating out of the groundwater to prevent it from reaching the river. Here again we are sampling and analyzing for chemicals common to our operation as well as for PCBs.

18Q: Did you ever use PCBs in transformers at the plant?

18A: Yes, like most industrial users of electricity, we used PCBs in our transformers as was the preferred standard at the time. Several years ago, when environmental concerns for use of PCBs surfaced, we

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hired a contractor to remove the PCB transformers. The PCBs were drained and incinerated. The transformers were decontaminated and landfilled according to accepted procedures. We no longer use PCBs in any of our equipment.

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Contingency questions if fine is imposed:

19Q: If you did everything according to the rules, why did the DEP impose a fine?

19A: We feel that the fine is unreasonable and uncalled for. We notified the N.J. DEP four days after receiving results of a two-year-study we had commissioned through O.H. Materials of Findlay, Ohio. The study identified two separate areas of concern: a layer of organic material on the groundwater and also identified an area of the plant where PCBs are confined.

It was known that PCBs used as a heat transfer fluid, were landfilled on plant property in the 1960s when they became unusable in the system. In 1979, Monsanto conducted a clean-up in the area and notified the NJ DEP when it excavated and sent the PCB contaminated soil to an approved landfill. We undertook another study in 1984 and when we received the final report from O.H. Materials in Nov., 1986, we notified the NJ DEP, Kearny Mayor Henry Hill, and Kearny Health Officer Ed Grosvenor.

The N.J. DEP praised us when we presented this plan for our positive remedial action. Monsanto feels that it complied with reporting requirements at each phase and therefore the penalty assessed is unwarranted.

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20Q: Didn't you know what the reporting requirements of the Spill Act were?

20A: The Spill Compensation and Control Act is unclear. Most spill reporting acts require reporting of releases and spills when they occur and do not require reporting of past activity. In any event, Monsanto had notified the state at the time the PCBs were removed in 1979, then again when the site study was completed in 1986. Therefore, we felt we had complied with all requirements of the Act.

21Q: How much were you fined?

21A: (When and if...$_____ amount)

22Q: Have you ever been fined for a reporting offense at this location before?

22A: No

23Q: Are you going to pay it or fight it?

23A: (To be answered when and if)

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