

Rachel's Environment & Health News

#310 - The N.Y. Times Detoxifies Dioxin (Again)

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During August and September U.S. Environmental Protection Agency (EPA) released drafts of 8 chapters of its long-awaited report on the dangers of dioxin. The agency then promptly convened a 4-day meeting of independent scientists September 22-25 to review and discuss the drafts.

The day after the meeting ended, the NEW YORK TIMES reported (Sept. 26, 1992, pg. 9) that "An independent panel of scientists concluded today that dioxin was not a large-scale cancer threat except to people exposed to unusually high levels of the toxic compound in chemical factories and from accidents."

The TIMES said, "The panel based its conclusions about the effects of dioxin on human health largely on four studies...."

The TIMES story said, "...the risk to average Americans exposed to dioxin, principally by eating beef, dairy products, chicken and fish, is lower than previously believed."

The TIMES reported that, "The risks, said several panelists, are largely confined to chemical workers and people exposed to high levels of dioxin from industrial accidents. They said the levels of dioxin ordinarily found in the environment had not been shown to be dangerous to people."

The TIMES went on, "Scientists have known for a long time that laboratory animals are apparently much more sensitive to the dioxin molecule than people for reasons that are not well understood, and newer studies have shown that trout, salmon, and some species of birds also are very sensitive."

The TIMES concluded, "In separate interviews, several panelists said today that they did not consider the levels of dioxin in most Americans, about 5 parts per trillion in fat, to be an important health hazard."

In sum, the NEW YORK TIMES led its readers to believe that a panel of independent scientists reviewed four studies and concluded, apparently by consensus, that dioxin is only a danger to the health of heavily-exposed chemical workers and victims of rare accidents, and even for them the only danger is cancer; that existing levels of dioxin in the environment are not dangerous to people; that the risks of dioxin are lower than previously believed; that laboratory animals and some wildlife may be at risk but this has little to do with humans because humans--for reasons unknown--seem to be uniquely unaffected by low doses of dioxin.

The TIMES put this comforting story on the wire and many U.S. newspapers picked it up. The result was a nation-wide press blitz saying dioxin is basically harmless to humans. For example, the DETROIT NEWS reprinted the TIMES story, then capped it off Sept. 29 with an editorial, "The End of Dioxin Hysteria?" which concluded, "But the fact that dioxin has turned out to be something of a non-issue where humans are concerned suggests the religious zeal with which some environmentalists are trying to close down the chemical industry deserves to be greeted with extreme skepticism."

Is this the last word on dioxin? It's not a threat to human health; levels found in the environment today are of little concern; the risks used to seem worse than they seem today; and the risks are limited to cancer among chemical factory employees. Is that what EPA spent 18 months and untold millions of dollars to find out?

It seems not. Other reporters and participants in the four-day meeting--including top EPA officials who called the meeting--came away with views and information almost 180 degrees out of sync with what the NEW YORK TIMES reported. On October 9, Erich W. Bretthauer, EPA's Assistant Administrator for Research and Development, sent a memo to EPA chief William Reilly giving Reilly his own views on what EPA has learned so far about dioxin. In his memo, Bretthauer made seven points, each of which was

either contradicted, or missed entirely, by the TIMES:

1. To understand the risks of dioxin, we should consider a broad range of health effects, not just cancer, Bretthauer told Reilly.
2. Dioxin has been observed to cause certain non-cancer effects in animals by disrupting the body's endocrine system (glands and tissues that control bodily functions via chemical messengers called hormones). These endocrine effects include reproduction, behavior of offspring, and changes in the immune system. "Some data suggest that these effects may be occurring in people at body burden levels that can result from exposures at, or near, current background," Bretthauer told Reilly. In other words, the amount of dioxin already present in the environment, and in the bodies of Americans, is at, or close to, levels that, in animals, cause hormone shifts, reproductive disorders, changes in behavior, and immune system damage.
3. Recent studies indicate that dioxin causes cancer in humans; these studies need to be evaluated further and then EPA needs to form a new official position about the cancer hazard to humans.
4. Additional compounds besides dioxin (for example, some types of PCBs) have dioxin-like effects and should be included in EPA's reassessment of the hazards of dioxin.
5. There is insufficient data to develop a model that will allow us to predict the cancer hazards to humans from low-level exposure to dioxin. During the next 3 to 5 months, government studies may provide the needed data.
6. The available data seem to indicate that dioxin will cause cancer in humans in proportion to the exposure--high doses will cause many cancers, lower doses will cause fewer cancers, and the only dose that is risk-free is zero. In other words, the so-called "linear hypothesis" of cancer causation appears to hold true in the case of dioxin, though this is not certain.
7. Risks from existing background levels of dioxin in the general population need to be "carefully considered."

The WALL STREET JOURNAL (Oct. 16, 1992, pg. B9) summarized Bretthauer's memo this way: "Data reviewed by an independent scientific panel suggest that the danger from dioxin may be broader and more serious than previously thought, according to an internal Environmental Protection Agency memo."

The business journal, ENVIRONMENT REPORTER [ER] (Oct. 2, 1992, pg. 1504), offered its own coverage of the Sept. 22-25 meeting. The basis of ER's story was an interview with William H. Farland, director of the EPA Office of Health and Environmental Assessment, the man in charge of the EPA's reassessment of dioxin. Farland summarized the four-day meeting by saying dioxin is "a major health threat," and that the draft report on dioxin is "unlikely to ease public concern over dioxin."

Farland said that "scientists at the recent meeting reported a host of non-carcinogenic effects at very low dose levels--near background levels--as well as the ability to cause cancer in humans at high doses," ENVIRONMENT REPORTER said.

In sum, EPA's scientific reassessment of dioxin--which is based on several thousand studies of dioxin--isn't over yet, but so far the scientific evidence is showing dioxin to be a worse problem than formerly believed. The reassessment was initiated by EPA chief Reilly 18 months ago in response to complaints by the paper and chlorine industries, who charged that EPA's regulation of dioxin was too strict because low doses of dioxin are harmless. These industries argued that there is a "threshold," an amount of dioxin below which no effects will occur. EPA's scientific reassessment of dioxin has, so far, substantiated EPA's original view of dioxin, that it is a potent toxin for which there is no observable threshold.

Furthermore, the reassessment has added a host of new concerns, which were discussed at length during the four-day meeting--concerns about disruption of the reproductive system, harm to the immune system, and behavioral changes in offspring of dioxin-exposed parents.

The really big news from the meeting was the revelation that these endocrine-system effects in animals are observable at body burdens similar to the body burdens in Americans today. If this view is upheld in the next few weeks as scientists continue to review the available data, it will mean that any addition of dioxin to the environment will be adding to an already-unacceptable situation. This would provide a scientific foundation for a demand that "zero discharge" be adopted as the basis for control of dioxin. William Farland nearly said as much in his interview with ER: "We have to be very cautious about any additions of dioxin to the environment. We must be very concerned about these high background levels of dioxin and what they may mean for human health."

Industries that emit dioxin into the environment--paper producers, waste incinerators, metal smelters, and herbicide producers and users-- are feeling tremendous pressure to curtail emissions, and the pressure seems likely to increase.

Newspapers, of course, are dependent upon paper for their existence and they have a material interest in keeping paper prices low. According to the WALL STREET JOURNAL, the paper industry has already spent over a billion dollars trying to control dioxin.

The NEW YORK TIMES, which has a history of odd reporting on dioxin (see RHWN #248, #249, #275), received at least three letters to the editor complaining about its misleading coverage of the September meeting--two of them from scientists who participated in the meeting and who objected strongly to the TIMES's reporting. The TIMES also received a letter from a consultant to the incineration industry who said it was "comforting" to learn that the dioxin found now in the bodies of Americans is "less toxic than previously assumed." The TIMES did not print either of the letters from the scientists but did print the letter from the incineration consultant, who argued that automobiles are the leading source of dioxin. This point of view, which is no doubt comforting to the incineration industry, and to the paper and newspaper industries, is almost certainly wrong. We will provide more details next week.

--Peter Montague

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