United States
Environmental Protection
Agency

Communications, Education,
And Public Affairs
(1700)

September 1994

EPA

001291

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SEPTEMBER 13, 1994

Today the EPA is releasing a "public review draft" of its dioxin reassessment. This release marks a major milestone in our effort to reevaluate our scientific understanding of dioxin. More than 100 EPA and outside scientists have worked for over three years to develop the current draft of the reassessment. Over the next 120 days , the EPA will be taking public comments on the draft document. Early in 1995 EPA's Science Advisory Board will conduct a formal scientific peer review. We will conclude the reassessment about a year from now, incorporating appropriate changes that have been indicated by the public comments, peer reviewers and the SAB.

Dioxins are a group of chemical compounds inadvertently created through a number of activities including: combustion, certain types of chemical manufacture, chlorine bleaching of pulp and paper, and other industrial processes. Dioxin is produced in very small quantities compared to other pollutants (around 30 pounds annually); however, because it is highly toxic, it has been treated as a significant environmental pollutant since the early 1970's. EPA first took action against dioxin regarding the herbicide 2,4,5-T in 1979. Since then, EPA has expanded its dioxin control efforts to each of its major programs.

In 1985 EPA published a scientific review of the health effects of 2,3,7,8-TCDD, the most toxic of the dioxin family of compounds. That assessment serves as the scientific basis for dioxin risk estimates for all EPA programs. Since 1985 a number of scientific and newspaper reports have raised questions about the risks posed by dioxin. The draft study not only updates the 1985 document, but also represents an ongoing process to build a broad scientific consensus on dioxin's toxic effects.

To help foster this consensus, EPA has worked to make each phase of the dioxin reassessment an open and participatory process. These efforts have included the involvement of outside scientists as principal authors of several chapters, several public meetings to take comment on our plans and progress, and publication of earlier drafts of our work for public comment and review. We are continuing this participatory process by making the current draft available for public comment and full scientific review. When this process is completed, we anticipate having an up-to-date and thorough scientific assessment of dioxin that is at the cutting edge of environmental toxicology.

Regarding health risks, the draft study reaffirms the association of dioxin and cancer. In its 1985 assessment, EPA concluded that dioxin is a proven animal carcinogen and a probable human carcinogen. Today's report reaches the same conclusion, but with greater confidence. Based upon both animal and human evidence, EPA's estimate of dioxin's cancer potency is essentially unchanged from that of 1985.

The draft reassessment differs significantly from the 1985 document in its evaluation of dioxin's non-cancer effects. Today we have a stronger body of evidence to suggest that at some dose, dioxin exposure can result in a number of non-cancer health effects in humans. These effects may include developmental and reproductive effects, immune suppression, and disruption of regulatory hormones. We have no direct evidence to show that any of these non-cancer effects occur in humans at everyday levels of exposure. However, we can infer from the data that average everyday exposures are close to exposures that are known to cause such effects in laboratory animals.

The draft study also identifies dioxin sources that are known to contribute to environmental contamination. Waste combustion accounts for about 95% of all the known emissions, with medical and municipal waste combustion dominating the combustion sources. It is likely that there are a number of unidentified sources of dioxin in the U.S. and that we do not have sufficient information about emissions from known sources to provide precise estimates. It is also

possible that much of the dioxin that contributes to human exposure results from past dioxin emissions recirculating in the environment. Although there are some natural sources of dioxin, such as forest fires, it seems clear that dioxins are primarily a product of modern industrial society.

We believe that the pathway for exposure to humans is primarily via airborne dioxins that settle on plants, and that are passed on through the food chain and associated particularly eith fat. The federal government emphasizes that the benefits from a balanced diet far outweigh any theoretical risks from dioxin exposure.

While the reassessment has been underway, EPA has continued to move forward in implementing its dioxin control programs. EPA has taken action under every one of its major statutes to control the risks of dioxin, and we believe these activities have made, and will continue to make, major strides in reducing dioxin emissions. Recent actions taken by EPA include proposing air emission standards for municipal waste incinerators, proposing stringent water effluent standards for pulp and paper mills and waste incinerators. No later than next February, EPA will propose strict air standards for reducing dioxin and other emissions from medical waste incinerators.

While the science of the reassessment is undergoing peer review, EPA will be examining the reassessment's policy implications to determine what changes, if any, are needed in existing programs. I want to stress that existing EPA efforts and programs will not be changed on the basis of this draft reassessment,however, they may change significantly after the completion of the peer review. EPA is committed to developing an agency-wide strategy for managing dioxin risks, concurrent with completion of the dioxin reassessment. As with the reassessment, we want to provide an opportunity for early public input into our policy evaluations. This spring, EPA will hold dioxin policy workshops to explore the policy implications of the reassessment. The details of these workshops will be announced later.

This massive scientific effort has made it clear that there are significant data gaps that are critical to our understanding and effective management of dioxin. As a consequence, EPA has begun major initiative to expand the understanding of dioxin sources, environmental pathways and human exposure. Our highest priority will be to identify additional data to improve the reassessment; however, the exposure initiative will extend beyond the reassessment into future years.

As a part of this effort, today we are calling on all parties to voluntarily submit any data that can help us better understand dioxin exposure. The EPA is requesting that industry, public interest groups, state and local governments, academia, and hospital facilities examine their files for existing data. We need information on dioxin sources, releases and levels in air, water, soil, food, animal feed, and human tissues. In addition to this voluntary call-in of existing data, EPA is calling on industries that are potential dioxin sources to voluntarily work with the Agency to devise and implement emissions testing programs.

The reassessment represents a major expansion of EPA's scientific understanding compared to our previous assessments of dioxin toxicology. Because many of the studies included in the reassessment have only recently been part of the scientific literature and our integration of this evidence is entirely new, it is important that the reassessment undergo thorough public and scientific peer review. At the same time, because the general thrust of the reassessment is consistent with our past scientific basis, we feel confident in aggressively pursuing our ongoing dioxin control efforts. This report, once it has completed peer review sometime next year, will give us the best scientific basis possible to guide our continuing efforts to curb dioxin risks.