



Dioxin Tier 4 Study

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Answers to Commonly Asked Questions

Background

The National Dioxin Study is a multi-media study mandated by Congress to examine the potential sources and risks due to dioxin in the environment. The study is organized into seven tiers or categories ranging from sites where known dioxin containing chemicals have been manufactured (Tiers 1 and 2) to sites with no known manmade contamination (Tier 7). A comprehensive explanation of the National Dioxin Study is covered in the EPA Dioxin Facts, July 1984.

Q What is the Tier 4 study?

A Tier 4 of the National Dioxin Study is a subpart of the EPA National Study which focuses on the potential emissions of dioxins from combustion sources. The study will attempt to assess the probability of dioxin emissions that may be formed in the actual combustion process generated from boilers, incinerators and other sources. The study will also quantify such emissions and their concentrations, assess any health and environmental risks involved and develop the basis, if necessary, for any regulatory or control effort.

Q What is included in "dioxins"?

A Dioxin is often used to refer to any or all of 75 chlorinated isomers of the organic compound, dioxin. Frequently, 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) is the isomer associated with the term as it is considered one of the most toxic compounds known. The Tier 4 study will also provide results for 2,3,7,8-TCDD and certain groups (homologues) of isomers which may also have health implications.

Q What types of combustion sources will be tested and when?

A The following combustion sources are expected to be tested for the potential emission of 2,3,7,8-TCDD in the fall of 1984 through the summer of 1985:

- Sewage Sludge Incinerators
- Black Liquor Boilers
- PCP Sludge Incinerators
- Carbon Regeneration (industrial)
- Charcoal Manufacturing
- Wire Reclamation
- Wood Stoves
- Wood Boilers (firing PCP treated wood)
- Mobile Sources
- Small Spreader-stoker Coal Boiler
- Chlorinated Organic Waste Incinerators
- Lime-Cement Kilns Co-Fired with Chlorinated Organic Wastes
- Commercial Boilers Firing Fuels Contaminated With Chlorinated Organic Wastes
- Forest Fires
- Apartment House Flue-fed Incinerators
- Agricultural Burning
- Landfill Flares
- Residential Oil Burners Burning Waste Oil
- Municipal Solid Waste Incinerators
- Industrial Boilers Co-Firing Wastes

Q What are the potential hazards from combustion sources to the public?

A Though 2,3,7,8-TCDD and other dioxin isomers are toxic compounds and are known to exist in emissions from some combustion sources, at this time, available data does not indicate that there is an unreasonable risk to public health. For example, municipal incinerators have been identified as one of the largest combustion sources of dioxins, but they have not been found to emit sufficient quantities or concentrations to be of unreasonable risk to public health. However, since it has been hypothesized that many combustion sources have a potential to emit dioxins, the Tier 4 testing is aimed at collecting actual emissions data so that these hypotheses can be confirmed or disproven.

Q When will the testing results be known?

A After all the identified sources are tested, the samples will be analyzed at EPA and contract laboratories. The final data are expected to be available and summarized in a report scheduled for the end of 1985.

Q What will EPA do if dioxins are found?

A A risk assessment will be made to determine the likelihood of harm to public health. If risks are significant, follow-up regulatory and control measures may be warranted. The data collected from Tier 4 will provide information to determine whether dioxin should be listed as a hazardous air pollutant.