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Superfund Risk Assessment—

What it's all about
And how you can help

We at EPA would like you to help us learn about the health risks of the Superfund site in your community. That's why we want to tell you about risk assessment, a tool we use in deciding how to clean up sites.

We hope that the more you know about risk assessment, the more you can help us. And the more you know, the more you'll understand the risks the site may pose to you and your family. You'll also see that your interest in the site can improve cleanup.

Risk Characterization

Risk Characterization, the final step of the process, sums it all up. It reveals which chemicals are posing the risks and what the health risks are. It also says how sure we are about the results. Since some uncertainty about risk estimates is unavoidable, we build in a large margin of safety to prevent underestimation of the risks. These safeguards are intended to protect the exposed public.

We now can use the risk assessment to develop a cleanup plan that will make the site safe for current and future uses.

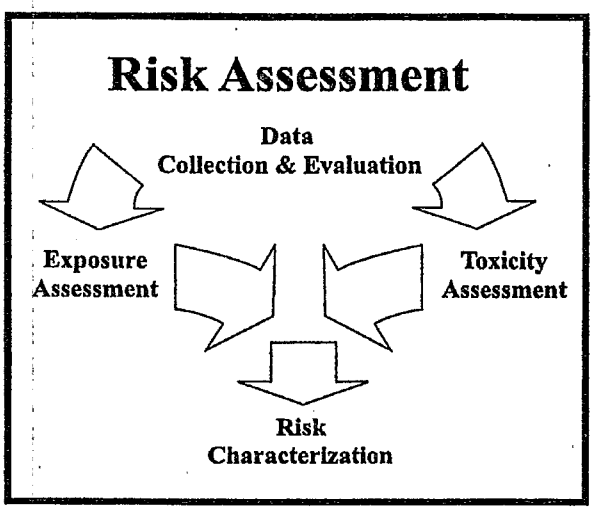
Here's how to get more information

- Call the toll-free Superfund/RCRA Hotline at 1-800-424-9346 or the Community Involvement Coordinator in the EPA regional office for your state.
- Information is available on the Superfund home page (www.epa.gov/superfund) under the Community Tools and Technical Resources subheadings.

Here's a brief review of Superfund risk assessment

We study health risks based on what people do and are likely to do on the site. Our goal is to protect everyone who could come in contact with chemicals from the site especially children, women of childbearing age, the elderly, and others who may be at greatest risk.

We use a four-part process to estimate the chance that contact with chemicals from a site will harm people now or in the future. This process gives us numbers that show how great (or small) the risks may be. It also points to who is at risk, what is causing the risk, and how sure we are about the numbers.



Data Collection and Evaluation

The first step of the process is Data Collection and Evaluation. We find out what has happened at and around the site and where chemicals may have been left. We collect samples of the soil, water, air, fish, garden vegetables, and other things that might contain chemicals from the site. From these samples, we try to find out what chemicals are there and how much. You can help us find out where chemicals might be and how

You can help us find out—

- Where chemicals are located
- What people do on or near the site

they got there. For instance, you may have seen someone dumping something or know about the history of the site. This information helps us get better samples.

Exposure Assessment

People must come in contact with chemicals from the site to be at risk

In the next step—Exposure Assessment—we use the data collected in the first step to find out how much of each chemical people may be exposed to. People must come in contact with the chemicals to be at risk. The amount of exposure depends a lot on how much of each chemical is there, who might be exposed, and how they are exposed. For instance, children might play in a polluted stream. People might drink polluted well water or eat polluted fish. You can tell us about these activities, which helps us identify everyone who could be exposed. Your assistance helps us estimate the highest exposure anyone is likely to receive from the site.

Toxicity Assessment

"The dose makes the poison" (Paracelsus, 1567) which means as dose rises, the risk of harm rises

Toxicity Assessment is how we learn about which illnesses or other health effects may be caused by exposure to chemicals. It also says at what dose harmful health effects will occur. This is the same as saying how much of each chemical it takes to cause harm. The higher the dose, the more likely a chemical will cause harm.