

will develop some form of cancer in their lifetime. Thus, the average background cancer rate, when added to a health risk assessment value of 10×10^{-6} cancer risk, would predict a total cancer burden of 250,010 cancer cases per one million - potentially 10 additional cases over the normal rate of occurrence. (Source: United State EPA).

WHAT IS BEING DONE TO REDUCE THE HEALTH RISK FROM SIGNIFICANT RISK FACILITIES?

The California Legislature amended the "Hot Spots" Act in 1992. This law requires each significant risk facility to reduce its air toxic emissions to a level below the action level within a specific time frame. This reduction in air toxic emissions is a goal of both industry and the District to improve air quality where we live and work.

WHAT DOES THE "Hot Spots" ACT MEAN TO YOU?

As the District reviews and finalizes HRAs, it will release the names of facilities that are deemed to have a "significant" health risk. Facilities designated as a "significant" risk will send letters to businesses, residences, schools, etc. near their area of impact. If you receive a notification letter from a facility and have further questions, please contact the District or the facility. Each notification letter will give you the name and phone number of your District contact person.

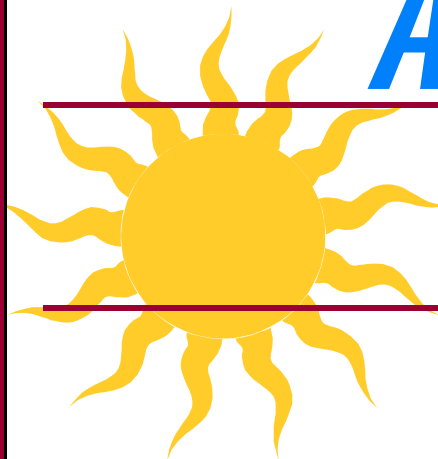
Please remember that a designation level of "significant" health risk does not necessarily mean that people who live near a source will experience harmful health effects.

For more information, call the toll-free "Hot Spots" information line at (800) SMOG-INFO (766-4463), or the San Joaquin Valley Unified Air Pollution Control District at (559)230-6000.



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Understanding Air Toxics and Risk



This brochure contains Information about:

The California Air Toxics "Hot Spots"
Information and Assessment Act

Air Toxics

"Hot Spots" Information and
Assessment Act Requirements

Health Risk Assessments



San Joaquin Valley
Unified Air Pollution
Control District

WHAT IS THE CALIFORNIA AIR TOXIC "HOT SPOTS" INFORMATION AND ASSESSMENT ACT?



In 1987, following a wake of public concern about emissions of potentially toxic chemicals into the air (air toxics), the California State Legislature passed Assembly Bill 2588 (AB2588), the California Air Toxics "Hot Spots" Information and Assessment Act. Its purpose is to inform the public about the content of everyday, routine toxic substances released into the air by local industry. The concern is that these emissions might create a localized concentration, or "hot spots", of toxic air which might harm the health of people exposed to it.

The San Joaquin Valley Unified Air Pollution Control District (charged with protecting the public health), the Office of Environmental Health Hazard Assessment (OEHHA), the California Air Pollution Control Officers Association (CAPCOA), and the California Air Resources Board (ARB) have adopted procedures for implementation of AB2588 throughout the District and state. As of 1993, more than 3,000 facilities in the Valley have worked with District officials to submit information required by this law.

WHAT ARE AIR TOXICS?



Air toxics are chemicals that are emitted into the air from a variety of sources. These toxic chemicals have been shown by scientists and other research experts to cause harmful health effects in some exposed persons. Sources of air toxics include industry, business, agriculture, vehicles, household products, wood stoves, barbecues, and more. Whether air toxics have a harmful effect on an individual's health depends upon a number of factors, including the concentration of toxics in the air, the length of exposure and the distance persons are located from the source.

WHAT DOES THE "HOT SPOTS" ACT REQUIRE?



To meet the requirements of the law, industry must report emissions from individual facilities to the San Joaquin Valley Unified Air Pollution Control District. The "Hot Spots" Act covers more than 700 State-designated airborne toxic substances and thousands of facilities throughout the state of California. All facilities subject to this law are required to complete at least the first two of the following five steps.

1: Emission Inventories

The Process begins with facilities who are subject to the law preparing a report which identifies the type and amount of chemicals (air toxics) they release into the air. The District must review, substantiate, and eventually approve the facility's inventory.

2: Prioritization

Facilities are ranked by the District based on the quantity and toxicity of the emissions. The District also takes into consideration the distance from the source to the public. Using a statewide-developed prioritization process, the District next places these sources into high, medium, or low priority categories. High priority facilities require further study of the potential health effect resulting from a facility's toxic air emissions. Being designated a high priority source, however, does not necessarily mean that a facility poses a significant health risk to the people living and working near the facility. Medium and low priority facilities are not required to do additional work past this step.

3: Risk Assessment

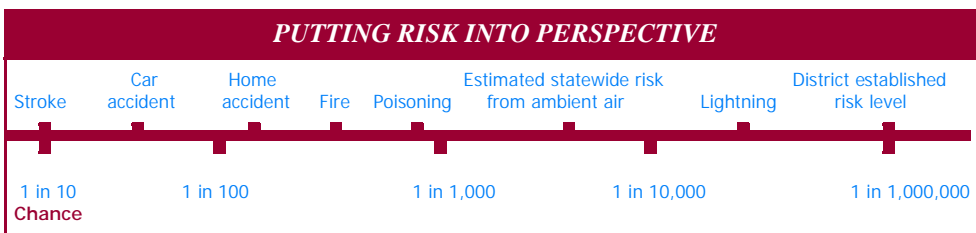
A facility ranked "high priority" must prepare a comprehensive health study, known as a Health Risk Assessment (HRA). The HRA discusses what possible harmful health effects may result from exposure to a facility's routine air toxic emissions. The HRA process also considers additional information such as weather, terrain, and a more detailed evaluation of distance.

4: Risk Notification and Communication

After the HRA is complete and a risk level has been assigned to a facility, facilities designated as "significant" will work with the District to Provide information to the public. This information will be communicated to the public in several ways including, but not limited to, newsletters, local newspapers, the District-prepared annual report, news releases, direct mailings or community meetings. Facilities deemed by the District to have "significant" public health risk impacts are required to communicate this information to the public by di-

Carcinogenic (cancer causing) effects describe the possibility that an individual might develop cancer from a specified exposure to air toxics. The Hazard Index is used to indicate how close an exposure level is to a reference point at or below which no harmful health effects are expected.

Most air districts statewide, including the San Joaquin Valley Unified Air Pollution Control District, view "significant risk" for carcinogenic as the possibility of causing 10 additional cancer cases in a population of one million people. A hazard index score of greater than one (1) for non-carcinogenic air toxic



rect mail. If you receive a letter at your home and have more questions, you may ask the District and the facility involved to hold a community meeting to further discuss the facility's HRA results. A "significant" risk is explained in more detail in the next section below.

5: Risk Reduction

Facilities determined by the District to be a significant risk will be required to reduce the risk to an acceptable level.

WHAT IS A HEALTH RISK ASSESSMENT (HRA)?



A "significant" health risk is the level of exposure to air toxics at which facility operators are required to notify the public. The trigger level for a designation of "significant" has been developed in cooperation with the ARB, CAPCOA, and OEHHA. The level of risk value used by the District is the same as is used by most air districts in the state. A designation of significant risk, however, does not necessarily mean that those exposed will develop harmful health effects.

WHAT DO THE CANCER RISK VALUE MEAN?



Calculated by the risk assessment process, cancer risk values are an estimate of the number of excess (or extra) cancer cases beyond the normal (background) number of cases that may occur from exposure to routine and predictable toxic air emissions. These risk values are based on the assumption of a 70 year lifetime of exposure throughout a population of one million people. For example, a cancer risk value of 10×10^{-6} (read ten in one million) means that there is a possibility that there will be 10 excess cancer cases in one million people over their lifetime. Compare this to the current background cancer rate of 250,000 people per one million population - the average number of people out of one million that - *continued on next page*