

# Health Risk Information: What does it mean?



## Health Risk Assessment Basics

The Bay Area Air Quality Management District is responsible to ensure our **air is clean.**

We do this by monitoring and assessing air quality and setting and enforcing standards. The Air District's regulations are some of, if not the most stringent in the nation.

Health Risk Assessments (HRA) are part of this work, and we follow state guidelines set out by California Air Resources Board and the Office of Environmental Health Hazard Assessment.

## What a Health Risk Assessment can do

A HRA is a tool to predict whether there is a potential risk to the public when chemicals are released into the air. Our assessments focus on requiring facilities to control emissions to protect those most vulnerable to pollution, including children. Their results helps us determine what action needs to be taken to do so.

## What a Health Risk Assessment can't do

A HRA cannot tell us whether people actually became sick from exposure, as there are many other factors that influence this.

The controls we impose protect the public from short and long-term impacts on health and cancer.

## Air Quality Impacts at Valero

The chemical of most concern released from the Valero facility is benzene. Benzene is one of the top 20 commonly used chemicals in production facilities.

Examples where benzene can be found: gasoline, diesel fuel, plastics, nylon rubbers, dyes, detergents, drugs, and pesticides.

Benzene is known to cause cancer and other impacts to health such as temporary eye, nose, throat and lung irritation, headaches, dizziness, blood disorders and reproductive effects from high levels of exposure.

*Is our drinking water and food safe?*

*Benzene is a gas that is not commonly found contaminating drinking water or food.*



Local, State and Federal regulations include limits for Benzene emissions that are health protective.

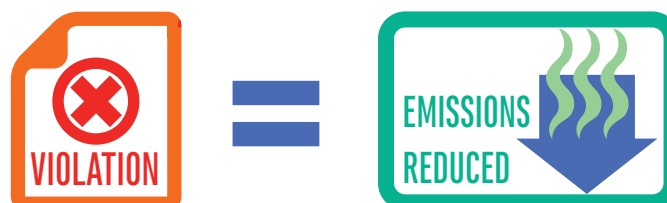
## Is the public at risk now?

- Air District tools cannot tell us whether people actually become sick from exposure, as there are many other factors that influence this. However, currently our tools indicate the risk of developing cancer or long-term (chronic) health impacts is below the health protective standards in Air District rules.
- Air District rules are widely regarded as some of the most stringent in the country and in the world.
- Our tools indicate there is a very small chance of short-term health effect from current facility emissions but only under rare meteorological conditions. The types of impacts people may notice include temporary eye, nose, throat and lung irritations, headaches and dizziness.
- In a 5-year period, the meteorological conditions which might allow this exposure to occur only existed for 2 hours.
- Even with the low predicted occurrence of this exposure, it may exceed the Air District rule limits and the facility is being required to prevent these emissions.
- The Air District has provided its data to the Solano County Health Department to answer questions regarding the actual health impact to the community from the current emissions.
- The Air District is seeking to control the emissions from this source below levels required in its regulations by going to its Hearing Board.



## What was the historic risk to the public?

- Historic emissions with the potential to cause cancer were above the regulatory levels where the facility would have been required to reduce or control them.
- Historically, the potential risk that a cancer might have occurred as a result of these emissions was approximately three chances in 1,000,000. By comparison, the average risk that a person may contract cancer from air pollution in Benicia is about 300 to 500 chances in 1,000,000, and the chance that a person may get cancer over their lifetime in the United States is one chance in three.
- Valero reduced emissions significantly as a result of a Notice of Violation issued by the Air District.



## Actions the Air District is taking

- Why this is a serious matter:
  - Facilities are legally required to inform us when emissions are greater than what's allowed.
  - The public should know about possible risks to their health.
  - This situation was unreported for several years.
  - Even with fixes, current emission from the Valero facility are above acceptable limits.
  - This can be reduced and controlled to protect our air quality and public and further action is needed.
- To be health protective we want to end this risk as soon as possible.
- The Air District is seeking to install a community emissions monitoring station in Benicia this year to better understand possible impacts on the community from refinery emissions.

## Actions the Solano County Public Health Department is taking

- The Air District has provided its data to Dr. Matyas, the Health Officer of the Solano County Health Department and questions regarding actual health risk to the community can be directed there.

