

Regulation 11-18 Health Risk Assessments

Frequently Asked Questions

What is Regulation 11-18?

Regulation 11-18 requires that facilities reduce health risks from stationary sources of air pollution. The rule applies to facilities where health risks on the surrounding community exceed what is called a risk action level. The risk action levels in the regulation are the most stringent in the nation. Regulation 11-18 requires action when a health risk assessment demonstrates that facility emissions result in a cancer risk of 10 in million or higher, a chronic hazard index of 1.0 or higher, or an acute hazard index of 1.0 or higher.

What is a Health Risk Assessment (HRA)?

A health risk assessment, or HRA, estimates the increase in health risks for people living, working or attending school near a facility that may result from exposure to a facility's emissions of toxic air pollutants. HRAs use a computer program called an air dispersion model to predict how facility emissions move into the surrounding community. For each potential community location, health impacts are calculated using standardized information about breathing rates, daily activities, and pollutant toxicity, which are published by the California Office of Environmental Health Hazard Assessment.

What types of health risks are considered?

Air District HRAs estimate three types of health impacts: cancer risk, non-cancer health impacts due to long term exposures (called a chronic hazard index), and non-cancer health impacts due to short term exposures (called an acute hazard index).

What is cancer risk?

Cancer risk is an estimate of the likelihood that an individual will develop cancer during their lifetime. It is a probability of occurrence that is expressed as chances in million. A cancer risk of 10 in a million indicates that a person has an additional risk of 10 chances in a million (0.001%) of developing cancer during their lifetime as a result of the air pollution scenario being evaluated.

What is hazard index?

Hazard index is an estimate of the likelihood that an individual will experience non-cancer health effects (e.g., cardiovascular, neurological, respiratory, etc.). An acute hazard index estimates the likelihood of a person experiencing non-cancer health effects when they are exposed to a toxic pollutant concentration for a 1-hour period. A chronic hazard index estimates the likelihood of non-cancer health effects when a person is exposed to a toxic pollutant concentration for a 1-year period or longer. A hazard index less than 1.0 indicates that people are not likely to experience any non-cancer health effects.

What do the results of the assessment mean for public health?

HRAs conducted for Regulation 11-18 estimate health risks resulting from a facility's routine stationary source emissions. The results reported are the highest health risk for an individual living, working, or attending school near a facility. Regulation 11-18 HRAs will identify individual facilities and specific stationary sources of pollution that pose elevated health risks and that require risk reduction.

Regulation 11-18 HRAs **do not include** mobile sources (cars, trucks, or off-road equipment) of pollution associated with a facility, do not reflect cumulative impacts from multiple facilities located near each

other, and do not include road traffic or other transportation sources in the area. The Air District is working directly with the communities to target these types of health risks and risk reduction through the Community Health Protection Program.

What strategies are required to improve health outcomes?

Any facility that has a health risk at or above a risk action level must either reduce their total stationary source health risks below all risk action levels or demonstrate that all significant risk sources are using the best available emission controls. Impacted facilities must develop and implement risk reduction plans. Risk reduction measures may include installation of abatement equipment, changes to processes or operations, relocation of sources or other modifications to their facility that reduce air pollution exposure to the community.

What is a significant risk source?

A significant risk source is any stationary source that has a cancer risk of 1 in a million or higher, a chronic hazard index of 0.2 or higher, or an acute hazard index of 0.2 or higher, as demonstrated by a Regulation 11-18 HRA.

What are the next steps?

The Air District web site (<https://www.baaqmd.gov/community-health/facility-risk-reduction-program/facility-risk-reduction-list>) identifies the facilities that Air District staff is currently evaluating for Regulation 11-18. A draft HRA report is posted for each facility as soon as it is complete. This draft HRA report identifies the facility's health risks, sources of significant risk, and risk reduction requirements. The public is invited to provide comments on each HRA report.

If risk reduction is required, the facility will be required to submit a risk reduction plan (RRP) for Air District approval. The public will also have an opportunity to provide comments on these plans.

How can I stay involved?

Subscribe to email notifications regarding Regulation 11-18 activities at:

<https://www.baaqmd.gov/community-health/facility-risk-reduction-program>

Identify facilities of interest using the searchable table on the web site at:

<https://www.baaqmd.gov/community-health/facility-risk-reduction-program/facility-risk-reduction-list>

Provide comments on HRA reports and RRP. Comments may be submitted on-line, by email, or in writing to the Air District Contact identified for the site.