



# Environmental Health Evaluation

## Litton Systems, Inc. Site Public Meeting Springfield, Missouri March 14, 2019

Missouri Department of Health and Senior Services (DHSS)  
Bureau of Environmental Epidemiology (BEE)

# Evaluating Environmental Health Risks

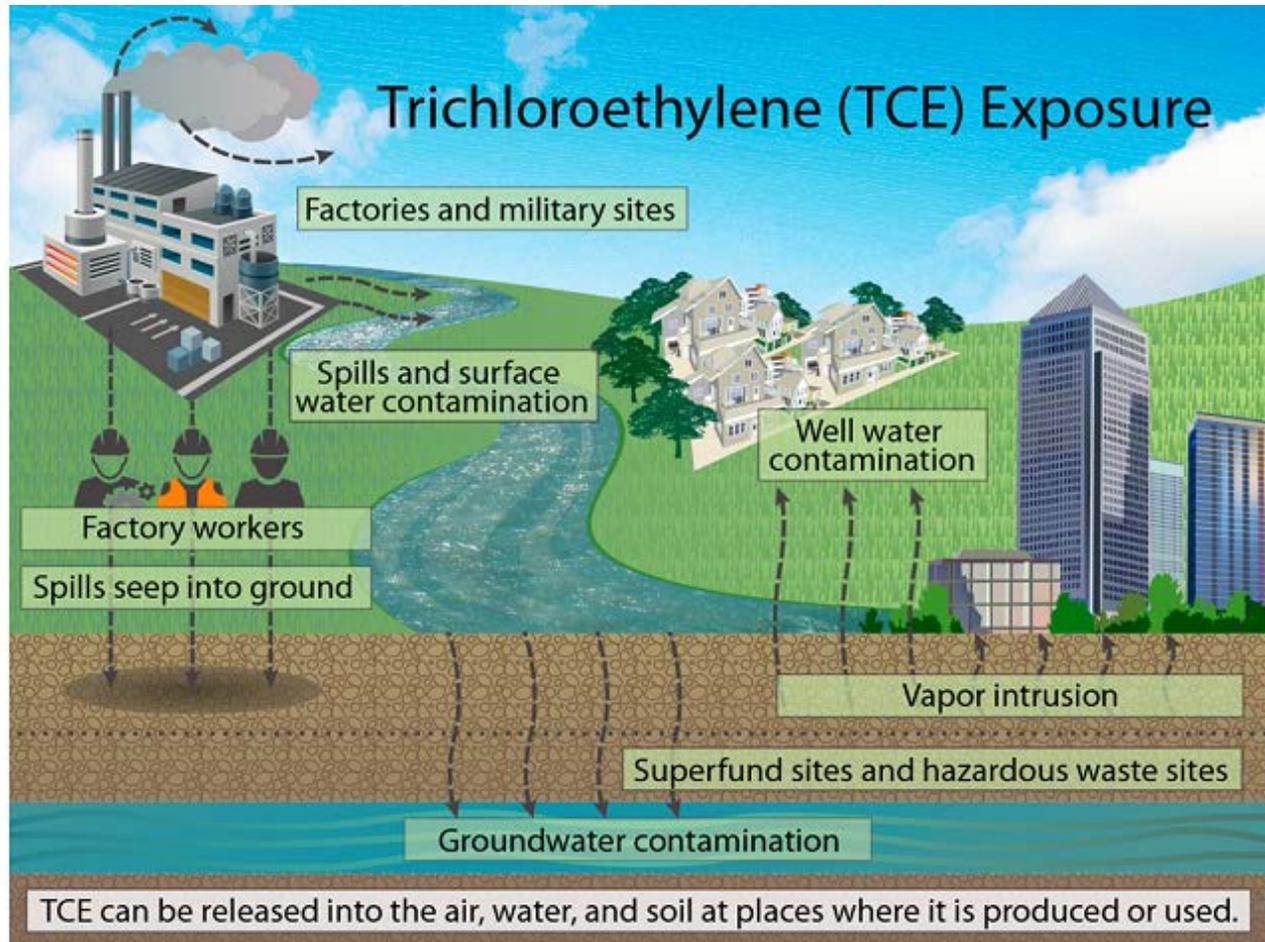
**DHSS uses data to evaluate potential health risks from exposure to contaminants in the environment:**

- Environmental sampling data (air, water, soil, etc.)
- Chemical-specific data (toxicity data, physical properties)
- Human exposure estimates (exposure frequency, duration, etc.)

**Our evaluation seeks to answer:**

- What contaminants exist and are of potential concern?
- How might people be exposed to the contaminants?
- At what level of exposure are cancer or non-cancer effects possible?
- What are the potential risks and uncertainties?
- How might risks be reduced or minimized?

# Potential Trichloroethylene (TCE) Exposure Pathways



Source: National Toxicology Program (NTP)

# Exposure and Potential Health Effects

## **Not all exposures cause harmful effects.**

- The effect of exposure to a contaminant depends on a variety of factors, including:
  - the toxicity and concentration of the chemical,
  - how the chemical enters a person's body, and
  - how much, how often, and how long exposure occurs.
- In addition, individual health, sensitivity, and other personal factors play a role in whether or how much an individual may be affected from exposure to a contaminant.

**Health agencies cannot link individual illnesses to specific environmental exposures.**

# Potential Health Effects from TCE Exposure

**TCE toxicity has been widely studied and there are some specific potential effects of concern if a person is exposed to a sufficient dose.**

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Potential increased cancer risk:

- kidney
- non-Hodgkin's lymphoma (NHL)
- liver

Potential non-cancer effects:

- immune system
- nervous system
- kidney
- liver
- male reproductive system
- developmental effects

# Potential Environmental Health Risks

## Contamination of Private Wells

- Well sampling results collected to date show TCE detected in four wells above a level of health concern. All other wells have been non-detect or had detections below a level of health concern.

## Potential for Vapor Intrusion (VI)

- VI sampling results collected to date do not indicate a potential VI risk for the broad community.

***Additional investigation and evaluation will be ongoing over the coming months to fully address potential health risks.***

# For health-related questions, contact:



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