# Exposure to Hazardous Chemicals

The EPA is developing an AI-based model (<https://www.epa.gov/data/epa-artificial-intelligence-inventory>) of possible harm to people from exposure to hazardous chemicals (<https://pubmed.ncbi.nlm.nih.gov/30516957/>). The risk depends on many factors: the inherent toxicity of the chemicals, how they are spread (airborne, poisoning a water supply, affecting locally grown plants, etc.), risks to the site from floods, high winds, train derailments, enhanced susceptibility of particular individuals or groups of individuals, and more. The complexity of these factors and the interaction between them—high winds may damage a building, but the same winds could disperse the chemicals—is why the EPA wants an AI-based model.

Suppose that a factory that will use a variety of some possibly toxic chemicals is being built in a town. Local residents are concerned. However, based on these models, the EPA and assorted permitting agencies assert that there is no danger to the public. How should the system be designed to enable people to contest the decision?

Questions to ponder:

* 1. Who might want to challenge a ruling?
  2. What personal knowledge might they already have?
  3. What might they need to acquire?
  4. What has the government previously published about the AI model being used?