

5.5: State Regulatory Toxicology

Learning Objectives

- 1: Define what is meant by “State Regulatory Toxicology”.
- 2: Give an example of a state regulatory regulation.

What is State Regulatory Toxicology?

As the name suggests, it deals with regulatory toxicology for the US on a state level (e.g. Texas, Delaware, Arizona). It was established by authorities applicable to a given state. State regulatory toxicology only applies with the state’s boundaries; however, they may influence adjacent states or even national regulatory toxicology.

State regulatory toxicology is under the layer of the US national government. It sits under a complex web of state and local laws and policies, in addition to regulatory authorities. The make-up of state and local governments varies widely across the US; while they have mutual specific features, their organizations differ. Whatever their design, state and local governments can sometimes have a much greater impact on people's lives than the federal government.

The Federal-State Toxicology and Risk Analysis Committee (FSTRAC) is made up of representatives from U.S. state health and environmental agencies and U.S. EPA personnel.

FSTRAC is an integral part of EPA’s communication strategy with states and tribes for human health risks associated with water contamination. It fosters cooperation, consistency, and an understanding of EPA’s and different states’ goals and problems in human health risk assessment. Additionally, it allows states and the federal government to work together on issues related to the development and implementation of regulations and criteria under the [Safe Drinking Water Act](#) and [Clean Water Act](#).

FSTRAC members have supported development of Human Health Benchmarks for Pesticides (HHBP).

- 1: Represent levels of pesticides in drinking water that are not anticipated to cause health effects.
- 2: Used to help assess drinking water quality for pesticides that do not have other regulatory toxicology standards.

Examples of agencies that set national toxicology regulations in the U.S.:

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The goal of state agencies is the same as federal agencies, protect people and the environment from health effects associated with chemical exposures.

States have differing regulatory toxicology requirements and focuses. Reasons for the differences could be due to: state history, geography, culture, population size and diversity, major industries, etc...

Examples of state regulatory toxicology as it concerns chemicals in air:

TEXAS

Effects Screening Levels (ESLs) – Air concentrations generally applicable to a specific chemical set by the Texas Commission on Environmental Quality (TCEQ). Play an important role in the regulation of air emissions from companies located in the state. List of ESLs [here](#).

CALIFORNIA

Reference Exposure Levels (RELs) – Air concentrations generally applicable to a specific chemical set by the California Environmental Protection Agency (CalEPA). Represent an air concentration that does not pose a health risk to people. List of RELs [here](#).

Agency	State Specific Rule or Regulation	Requirement
CalEPA	Proposition 65	<ul style="list-style-type: none"> List of chemicals known to the state to cause cancer or reproductive toxicity
TCEQ	Texas Risk Reduction Program (TRRP)	<ul style="list-style-type: none"> Established cleanup standards for contaminated chemical sites

Figure 5.5.1: Example of state toxicology regulations and the requirement that must be followed.

Example agencies that set state toxicology regulations

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Agency	Regulation
Office of Environmental Health Hazard Assessment	Proposition 65 (Prop 65)
State of Washington Department of Ecology	Children's Safe Products Act (CSPA)
Minnesota Department of Health – Environmental Health	Minnesota Wellhead Protection Program

Figure 5.5.2: Example agencies that set state toxicology regulations.

An example of a State Regulatory Agency is the **CalEPA Office of Environmental Health Hazard Assessment (OEHHA)**: Provides requirements and guidance for the California Proposition 65 Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).

Proposition 65

Purpose

Enable consumers to make informed decisions regarding chemical exposures.

Reason

Established to protect California citizens from chemicals known to the state to cause cancer, birth defects, or other reproductive harms.

Scope

Addresses chemical exposures to the citizens of California that may occur through consumer products, workplace exposures, and exposures occurring via the environment.

Basics

OEHHA publishes a list of chemicals known to cause cancer, birth defects or other reproductive harm. The list is updated regularly and currently contains approximately 900 chemicals. Once a chemical is listed, companies have 12 months to comply with warning requirements under the regulation.

Proposition 65 is referred to as a “risk-based” regulation in that the warning requirements only apply if the risk from chemical exposure are too high as defined by the regulation.

Exposure examples:

- Oral
- Inhalation
- Skin contact

Proposition 65 upcoming changes...

The regulation has undergone revisions: [New Proposition 65 Warnings](#), that will now require companies to add a symbol and change the phrasing of the warning. For example: “**WARNING:** This product can expose you to chemicals including arsenic, which is known to the State of California to cause [cancer](#). For more information, visit [here](#).”

Topic 5: Key Points

In this section, we explored the following main points:

- 1: What is State Regulatory Toxicology?
- 2: An example of how federal and state agencies work together
 - What is the Federal-State Toxicology and Risk Analysis Committee (FSTRAC)
 - Two example outcomes of the FSTRAC's workgroup
- 3: Example of State Agencies
- 4: Highlight two state specific guidance and rules as it concerns chemicals in air
 - Guidance
 - Effects Screening Levels (ESLs)
 - Reference Exposure Levels (RELs)
- 5: Rules
 - California Proposition 65
 - Texas Risk Reduction Program rule

Knowledge Check

1. Proposition 65 is a regulation established in:

Florida

Texas

California

New York

Answer

California

2. Which of the following could explain some of the variability observed between states in terms of regulatory toxicology?

Degree of urbanization

Type of natural resources

Degree of industrialization

All of the above

Answer

All of the above

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