

## Act 154 Chemicals Working Group

Meeting Date: October 19, 2016

### GAPS EXERCISE

#### Overall Themes:

- Chemical-by-chemical approach is not effective.
- Many regulatory schemes and values are “reactive” instead of preventative.
- State coordination is effective, but a “stand in” for one central regulatory body. Should be more centralized oversight.
- Where is it appropriate for liability and burden for protection to fall? Currently, liability is “externalized” to the public.
- There is a lack of incentives for manufacturers and industry to reduce risks.

#### Gaps Categories

##### 1. CLEAN-UP/REMEDATION

- Chemical-by-chemical approach to remediation is ineffective:
  - Must be listed/categories as waste (chemicals not “listed” are not regulated and there is no requirement to remediate);
  - Doesn’t account for interactions between chemicals, degradation products, or accumulative risk.
- Lack of information on chemicals, toxicity, and occurrence to effectively identify contamination and perform remediation.
- Can be insufficient resources for identifying scope of contamination and remediation.
- Limits of technology to detect contamination and to perform sampling and clean-up.
- Challenging to define when release actually occurred.
- Issues with liability and Responsible Parties:
  - RP’s difficult to identify;
  - Root cause analysis/liability extending up to the supply chain – e.g., operator vs. manufacturer; difficult to identify and difficult to hold accountable;
  - RP’s may not have sufficient funds to perform remediation/clean-up.
- In cases like arsenic, there is no defined “release” and therefore, there is a undefined response and no clear remediation methods.
- Insufficient ability for citizens to respond to contamination and to led an effort to clean-up when State resources and authorities are challenged.
- Once released, contamination is more expensive to recover and remediate (entropy).

- Clean-up goals are concentration-based and site-specific. Risk is transferred from one population to another.

## 2. MANAGEMENT/PREVENTION OF RELEASES AND HARM

- Chemicals are assumed safe until proven unsafe (opposite of Precautionary Principle).
- Lack of science, data, and monitoring of chemicals regarding:
  - Toxicity;
  - multiple chemicals/synergistic effects;
  - accumulative risk;
  - environmental health biomonitoring.
- Lack of holistic system of chemical management:
  - No requirement for prior study before use in market;
  - Lack of sufficient regulation and ongoing monitoring once chemicals enter market;
  - Lack of chemical inventory in Vermont (chemicals in use, manufactured, stored, high volume, etc.);
  - Lack of central regulation including permitting use of chemicals;
  - Insufficient labeling of chemicals and chemicals in products.
- Chemical-by-chemical regulatory structure inefficient and challenging.
- Lack of clarity or requirements for “safer alternatives”.
- Expensive for manufacturers, users, consumers, State to conduct testing.
- Thresholds are not health-based, especially for most vulnerable populations.
- No regulatory incentive for identifying safer alternatives/green chemistry.
- Lack of sufficient federal regulation or federal preemption can affect and limit states’ authorities. States should be able to be more protective than federal requirements.
- Many chemicals are excluded from regulation under TSCA (PPCPs, cosmetics).
- No required testing of private wells.
- Lack of technical assistance, planning, best practices and sharing of best practices of chemicals used in industry and manufacturing – lack of assistance to help avoid or limit chemical use.

## 3. CIVIL REMEDIES

- Current frameworks and ability to recover are based on a chemical-by-chemical, which presents an inefficient way to sufficiently compensate for harm.
- Lack of funding to help affect communities.
- Liability is often “externalized” to general public.

- Difficult for citizens to recover costs of medical monitoring and impacts after exposure, even if legal claims are pursued.
- Burden is on injured parties and the burden is great. There are many limits on ability to bring a legal claim for relief:
  - Unknown routes of exposure (difficult to;
  - Lack of citizen suit authority;
  - Causation is difficult (proving that harm was caused solely by exposure to a specific chemical(s));
  - Statute of limitations – time-bars on bringing claims due to long latency periods;
  - Burden of proof and evidentiary standard for technical experts is very high;
  - Difficult to value human health/environmental costs from exposure;
  - Difficult to identify RP's for providing relief:
    - Complex corporate structures and formation of shell corporations can prevent recovery and clean-up costs;
    - Many laws protect companies from liability (bankruptcy, insolvency).
- Lack of meaningful remedies for exposure and harm.
- Remedies may cause new/additional environmental risks or be in conflict with other environmental concerns (e.g., lampricide).

#### 4. REPORTING/DISCLOSURE

- There is a wide gap between what experts/industry know vs. public/consumers know:
  - No reporting requirement if a substance is unregulated (emerging contaminants);
  - Insufficient public access to chemicals use-related information that is reported;
  - Insufficient knowledge about potential or actual exposure to chemicals;
  - Confidential business information/proprietary claims limit public knowledge of potential harm and risk
- Lack of industry knowledge about own chemical use – product supply chains are difficult to navigate; uses often don't have upstream information related to chemicals they use.
- Lack of institutional chemical data management systems (what, when used, where used, how used).
- Lack of central and integrated State reporting structure.
- Reporting is too limited:
  - CWA only looks at limited amount of chemicals that may be in water systems
  - TSCA – reporting/disclosure requirement is voluntary; manufacturers not requirement to investigate and disclose info prior to use
- Lack of biomonitoring data to measure exposure of human health and environment