

***Precautionary Principle***  
***–Practical Policy to Protect***  
***Children's Health***

**Debbie Raphael**

**Toxics Reduction Program Manager**

**[debbie.raaphael@sfgov.org](mailto:debbie.raaphael@sfgov.org)**

**(415) 355-3711**

# **The Goal:** ***Transforming the way we make decisions***

**Instead of asking, "How much environmental harm will be allowed?", in San Francisco, decision-makers will ask a very different question: "How little harm is possible?"**

**The Precautionary Principle  
does not pre-determine an  
outcome.**

**It creates a process for  
decision making.**

# The Precautionary Approach:

## ■ Risk Assessment

- What is an acceptable level of harm? (i.e. # of cancers in 1000 people)
- Does this activity (product) fall within that acceptable level?
- Single activity considered

## ■ Alternatives Assess.

- Is this potentially hazardous activity (product) necessary?
- What less hazardous options are available?
- How little damage is possible?
- Multiple activities compared

# San Francisco's Precautionary Principle Ordinance

- **Chapter One of a newly formed Environment Code – over arching principle.**
  - For complete text see:  
[www.sfenvironment.org](http://www.sfenvironment.org)
- **Five Tenets Define a Mechanism for Implementation**

# **1. Duty to take anticipatory action to prevent harm**

**Historically, environmentally harmful activities have only been stopped after they have manifested extreme environmental degradation or exposed people to harm.**

# Waiting Too Long?

- Lead in gasoline, paint
- Asbestos in building materials
  - Tobacco
  - PCB's, DDT, CFC's
- PVC, Brominated Flame Retardants
  - Global Warming

## **2. Right to know complete and accurate information**

**Burden to supply this information lies with the proponent not the general public**

- Potential human health and environmental impacts are often not disclosed or even known**
- Example: “Inerts” in pesticides  
Plutonium handling and releases**



### **3. Duty to examine a full range of alternatives, *including doing nothing***

- Obligation to select alternative with least potential negative impact**
- Selecting which alternatives are considered and selected is a political/public decision**
- Example: How can discharges of plutonium be avoided/minimized?**

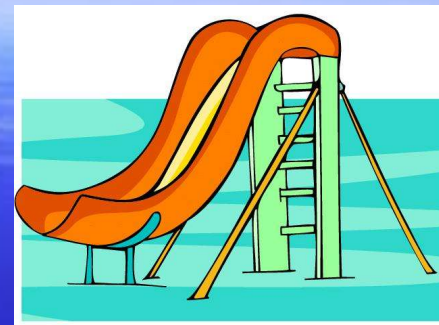
## **4. Must consider the full range of costs, including costs outside the initial price**

- All reasonable foreseeable costs: raw materials, transportation, manufacturing, clean up, disposal**
- Example: All costs associated with prevention of discharges.**

# **5. Decisions must be transparent, participatory, and informed by the best available information**

- Locally or internationally the public bears the ecological and health consequences of these decisions. *Environmental Democracy***
- *Example: Who is at the table to determine practices at the Lab?***

# Implementation in San Francisco



## ■ Arsenic Treated Wood

- Evaluated health and environmental impacts
  - *Sufficient evidence of harm*
- Alternatives analysis revealed:
  - Most applications have a less toxic formulation (ACQ, CBA)
  - Submerged Aquatic applications - arsenic treated wood is the most environmentally preferable formulation

# The Precautionary Principle:

**≠ Zero risk**

**= Minimize harm**

**≠ Zero science**

**= Maximize information/  
science**

**≠ Loss of jobs**

**= Increase innovation**

**≠ Predetermined  
outcome  
(i.e. ban)**

**= Transparent Process  
for public decision  
making**

# **Re-defining the Central Question for Decision Makers:**

**It is NOT sufficient to ask:**

**Is it legal?**

**Is it safe?**

**We Also MUST ask:**

**Is it necessary?**