



Toxics Use Reduction Institute

Alternatives Assessment: *An Overview*

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Reaction to Concerns

- Separate science (risk assessment) from policy (risk management)
- Place the burden for assuring safety on the government
- Reduce complex problems to simple algorithms
- Allow a certain “acceptable” level of harm
- ***Focus is on Problem Reduction***

Proactive Focus

- Integrate science and policy
- Place the burden for avoiding harm on the technology developer
- Promote action in the face of uncertainty
- Promote innovation and improvement
- ***Focus is on Solution Promotion***

What is Alternatives Assessment?

- Alternatives Assessment is a process for identifying and comparing potential chemical and non-chemical alternatives that can be used as substitutes to replace chemicals or technologies of high concern.
- **Goals –**
 - Reduce risk by reducing hazard
 - Avoid regrettable substitutions

Alternatives Assessment: Focusing P2 on Substitution

- Rather than focus on one bad option, focus on choices and opportunities
- Move from problems to solutions
- Assure that the solutions advocated are preferable to the hazards being replaced
- Encourage transparency and documentation

Uses for Alternatives Assessments

- Industries can evaluate safer substitutes for chemicals of concern
- Chemists and chemical engineers can select safer chemical processes and products in production processes
- Governments can evaluate potential substitutes before restricting chemical uses
- Advocates can document safer alternatives to chemicals of public concern

Remember

- Consider the *functionality* of the chemical of concern as well as its inherent *hazards*
- Finding a safer alternative and getting industry to adopt the use of it are **not** the same thing

The Process of Assessing Alternatives



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Define Your Goal

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- Bans vs. promote adoption
- Scope of project
- What is “safer”?

ID Chemicals of Concern

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- What do we know about its hazards?
- How is it used?
- Who cares?

ID and Prioritize Uses

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- Products
- Industry sectors
- Avail. of alternatives
- Exposure potential

ID and Prioritize Alternatives

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- ID suite of alternatives
- Screen out bads
- Focus on most likely candidates

Compare

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- EH&S
- Technical
- Economic
- Social

Select



- Depends on goals
- Consider data presentation

Promote Adoption

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- Implementation policy
- Incentives
- Promote research

Resources

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- Data sources
 - EH&S
 - Uses
 - Exposure
- Tools
- Examples

Thank You

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