

Alternative Assessment Efforts at the State Level

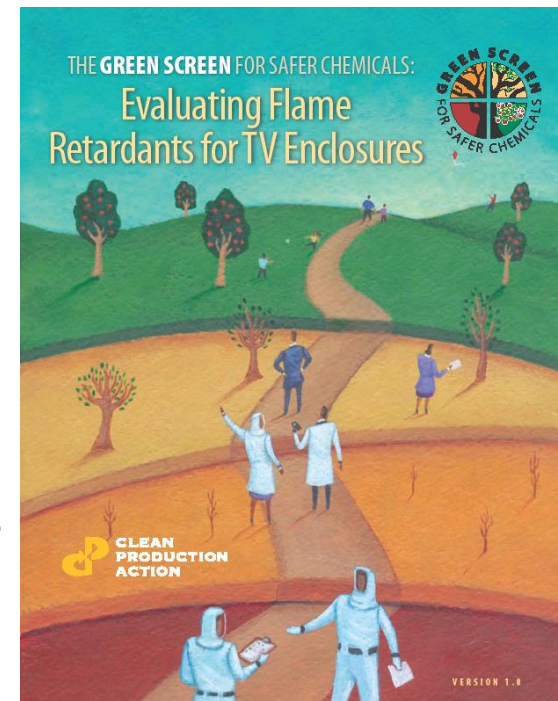
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WA Department of Ecology
BizNGO National Meeting
29 November 2011

Washington State Programs

- **An assessment tool to be used by small and medium businesses**
- **Development of an alternative assessment guidance document**

Alternative Assessments

- Evaluated alternative assessment methodologies
- Identified Green Screen™ as best able to meet Ecology's needs
 - Alternative Assessments are feasible
 - Procedures and data requirements developed by DfE, GHS, REACH, etc. and adapted into Green Screen™
 - Comprehensive and based upon the most recent science and assessment methodologies



Green Screen™ Concerns

- Time and resource intensive
- Requires expertise in chemistry, toxicology, process engineering, etc.
- Only a hazard assessment tool and more needed to complete an alternative assessment

Quick Chemical Assessment Tool (QCAT)

Developed to address some of Green Screen™ concerns

- Gives small and medium-sized companies a place to begin the safer chemical alternative process and enables them to become more comfortable with the process and potential benefits
- Determines safer chemical alternatives using less data for fewer endpoints
- Prioritizes toxicity criteria to identify those which are of highest concern
- Penalizes chemicals for lack of data

QCAT (cont)

- Is demonstrably different from the Green Screen™
- Clearly indicates that the QCAT evaluation incorporates greater risk than the Green Screen™
- Any changes to Green Screen™ will automatically be reflected in QCAT
- Is **NOT** a replacement for Green Screen™

Data Requirements

	QCAT	Green Screen™
Human Health:		
• Acute mammalian toxicity	X	X
• Carcinogenicity	X	X
• Reproductive/Developmental/Neuro-developmental toxicity	X	X
• Genotoxicity/Mutagenicity	X	X
• Endocrine disruption	X	X
• Neurotoxicity		X
• Respiratory sensitization		X
• Skin sensitization		X
• Systemic/organ effects toxicity including Immune System toxicity		X
• Corrosion & Irritation (skin & eye)		X
Ecological:		
• Acute aquatic toxicity	X	X
• Chronic aquatic toxicity		X
Environmental:		
• Persistence	X	X
• Bioaccumulation	X	X
Physical:		
▪ Reactivity		X
▪ Flammability		X

QCAT Results

QCAT		Green Screen™
Grade A	Few concerns, i.e. safer chemical	Preferable (Benchmark 4)
Grade B	Slight concern	Improvement possible (Benchmark 3)
Grade C	Moderate concern	Use but search for safer (Benchmark 2)
Grade F	High concern	Avoid (Benchmark 1)

- Use of a grading system to emphasize differences between QCAT and Green Screen™

QCAT Assessment

Human Tier 1					Human Tier 2				Eco		Fate		Physical	
C	M	R/D	ED	N	AT	Cr	Sn	ST	AA	CA	P	B	Ex	F
L	L	H	DG	?	L	?	?	?	H	?	vH	L	?	?

Note:

- Green Screen™ table used for QCAT
- Criteria omitted are identified as '?' to emphasize increased risk and that this is NOT a Green Screen™ evaluation

Final Points on QCAT

- QCAT is not meant to be a replacement for Green Screen™ but a simpler tool for small and medium-sized businesses to begin the alternative assessment process
- QCAT will always be a subset of Green Screen™
- Any changes to Green Screen™ will automatically be reflected in QCAT
- QCAT can also be used to prioritize chemicals or to eliminate chemicals from further review

Next Topic!

- Alternative Assessment Guidance



Alternative Assessment Guidance

- Ecology received \$150K grant from EPA's National Estuary Program to develop AA guidance
- Eight states (CA, CT, MA, MI, MN, NY, OR, WA) working together under overall umbrella of the Interstate Chemicals Clearinghouse
- EPA DfE providing technical support
- Ecology contracting for additional expertise and support

Mission Statement (draft)

Create an alternatives assessment process that promotes continuous improvement by fostering the manufacture of products that are benign by design.

Goals & Objectives (draft)

The guidance document will allow users to identify viable safer alternatives to toxic chemicals that:

1. Reduce risk by replacing toxic chemicals in products with inherently safer alternatives.
2. Prevent uninformed substitutions where alternatives are poorly understood, or are as toxic or more toxic than the original chemical.
3. Define the information required to conduct a credible alternatives assessment.
4. Continually improve products until they are benign to human health and the environment.

Goals & Objectives (draft)

The document is intended to be:

1. Flexible and transparent to meet the needs of a wide range of users (from small, medium and large businesses, to local, state and federal governments, to other interested parties, etc.)
2. Assist users when determining both which components and to what level each component should be incorporated into their alternatives assessment.

Alternative Assessment Components

(draft)

- Pre-screening evaluation
- Hazard evaluation
- Cost & Availability
- Performance & Process Engineering
- Exposure concerns
- Stakeholder Involvement
- Social environmental justice and related concerns
- Implementation of Green Chemistry Criteria
- Life cycle concerns
- Decision making methodology

Stakeholder Process

States committed to an open and transparent process during development of guidance

- Draft documents will be posted for stakeholder review and input
- If you are interested in being involved in the process, join listserv to receive notices when information is shared for comment
- Webpage now up and running at:
<http://www.ecy.wa.gov/programs/hwtr/ChemAlternatives/index.html>

Timing

Dates are very estimate

- Final guidance at the end of June 2012
- Two webinars in Winter and Spring 2012
- Will use the web to solicit input on issues of concern and progress
- Will complete a response-to-comments document

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