



May 3, 2013

Dr. Alex Stone  
Washington Department of Ecology  
P.O. Box 47600  
Olympia WA 98504-7600

Re: Comments on IC2 *Guidance for Alternatives Assessment and Risk Reduction*

Dear Dr. Stone,

BizNGO commends the IC2 TAAG Team for pulling together a comprehensive resource on Alternatives Assessment (AA). We agree with TAAG Team's approach that Alternatives Assessment is a solutions-oriented approach to addressing chemicals of concern to human health or the environment. The strengths of the current IC2 Guidance document are the assessment modules and the comprehensiveness of material pulled together. In the spirit of creating a document that is usable to the broad community of practitioners intended as users of the document, here are our comments.

In terms of course correction in the IC2 Guidance we have three broad recommendations:

- **Call it an AA "reference" document not a "Guidance" document.** Given the broad set of goals and objectives IC2 is charged with and the differing approaches of each government agency and each organization, we propose that the primary purpose of the document should be as a comprehensive resource on alternatives assessment. People should see the document as answering specific questions on alternatives assessment, but not as a "how to guide" for doing AA. As a reference document it will meet "the needs of a wide range of users."
- **Simplify it.** As the IC2 Guidance reads, it's very hard to understand how to use it for guidance in decision making. We have many suggestions to this end below.
- **Make it clear that weighting decisions based on hazard is what differentiates AA from risk assessment and life cycle assessment.** As a general approach, BizNGO sees hazard as the primary driver for decision making and differentiator in alternatives assessment. Placing the greatest weight on hazard is what differentiates alternatives assessment from risk assessment and life cycle assessment. That said, the driver of hazard as differentiator in AA does not come through in the IC2 Guidance where the minimum recommendations for AA are: hazard + exposure + performance + cost + availability. Our recommendation is that IC2 should make it clear that a weighting on hazard is what differentiates AA from risk assessment and life cycle assessment.

Below are BizNGO's specific comments and recommendations.

1. **Change the title:** *IC2 Reference Document on Alternatives Assessment*.
2. **Simplify document structure – here is a proposed outline**
  - a. **Introduction** [merge existing sections 3 and 4 – see below for detailed comments on these sections, including deleting the Principles]
  - b. **Approaches to AA: Examples** [add a new section – see comments below]

**c. Three Core AA Steps**

- i. Identify Chemicals of Concern [add this step– see comments below]
- ii. Identify Alternatives [use existing sections]
  1. Initial Evaluation Module [use existing section 5a]
  2. Identification of Alternatives Module [use existing section 5b]
- iii. Evaluate Alternatives – Assessment Modules [use existing sections]
  1. Hazard Assessment Module [merge existing sections 6b and 20b]
  2. Cost and Availability Module [merge existing sections 6c and 20c]
  3. Performance Evaluation Module [merge existing sections 6a and 20a]
  4. Exposure Assessment Module [merge existing sections 6d and 20d]
  5. Materials Management [merge existing sections 6e and 20e]
  6. Social Impact Module [merge existing sections 6f and 20f]
  7. Life Cycle Thinking Module [merge existing sections 6g and 20g]
- d. **Stakeholder Engagement** [merge existing sections 5d and 10b]
- e. **AA Decision Theory Frameworks** [merge existing sections 4 (pages 26-30), 5c, and 10a]

**3. Introduction – proposed edits to existing sections 3 and 4**

**a. Principles**

- i. **Delete the Principles on page 18.** The Principles on page 18 are overly prescriptive in terms of stating what should be part of an AA. As written, it is hard to tell how organizations would get to any decision based on these principles without performing costly and time consuming analyses of every single life cycle stage. In addition, the Principles are not widely agreed to. BizNGO recommends deleting them entirely.
- ii. **If the Principles remain, BizNGO recommends the following changes:** The “Flexibility” and “Life Cycle Thinking” principles are overly prescriptive and are not reflective of how many organizations perform alternatives assessment. We recommend the following changes to these principles:
  1. **“Flexibility:** At a minimum, an alternatives assessment includes hazard assessment. Four modules should be included in all analyses, specifically performance, cost and availability, hazard and exposure. The remaining modules should be considered by the user if relevant to the particular chemical, product or process under assessment.”

**BizNGO disagrees with the prescriptive approach of the Guidance document stating what a minimum AA should be beyond hazard assessment.**

2. **“Life-cycle Thinking:** As appropriate, All decisions made should reflect take a life cycle a broad perspective and include consideration of the full life cycle of the product. As relevant, it impacts to workers, consumers and to the environment across the life cycle and the supply chain should ~~all~~ be considered.”

**Life cycle evaluations should be done as appropriate to the ends of the AA. As written, this Principle is overly prescriptive and implies that every AA must require a life cycle assessment.**

**b. BizNGO disagrees with the minimum recommendations for AA (as specified on pages 20, 22, 82, and elsewhere in the document)**

- i. At a minimum, an AA must include a hazard assessment. Beyond hazard assessment it is up to the entity – be it a state government, company, or NGO --

to determine what else should be assessed to avoid a regrettable substitution. Which modules are appropriate will depend on the application – IC2 should not specify a hierarchy among modules beyond hazard assessment. For example, the State of Maine has an AA process that is inconsistent with the Guidance document’s minimum recommendations because it does not require all of those modules.

- ii. “The AA guidance-reference document includes: ... [here is the BizNGO recommended outline: 1) approaches to AA examples, 2) core steps for AAs, 3) stakeholder engagement module, and 4) AA decision theory frameworks]~~secombines the results from the seven assessment modules in a flexible manner to meet a wide range of users, products and processes.~~ The actual selection of which modules are used, their arrangement and how a decision is made, beyond hazard assessment, are primarily is left to the user; ~~however, specific minimum expectations and recommendations are included.~~ Once the number and order of modules have been established and a decision method selected, alternatives are evaluated. As with all AA processes, documentation of the decisions made and the results of evaluations are fundamental to completion of a valid AA.” (page 20).

#### 4. Add section: “Approaches to AA: Examples”

As an AA reference document it is important to include current approaches to AA within governments, businesses, universities, and non-governmental organizations (NGOs). These references can be quite short. For example, include a one paragraph overview followed by a flowchart that highlights which steps and modules are covered by each example. We recommend the IC2 include the following AA examples:

- a. Government Approaches
  - i. European Union - REACH
  - ii. Massachusetts Toxics Use Reduction Institute: *Five Chemicals Alternatives Assessment Study*
  - iii. State of Maine
  - iv. State of California: Safer Consumer Product Regulations
  - v. Stockholm Convention on Persistent Organic Pollutants: as specified by the POPs Review Committee
  - vi. U.S. Environmental Protection Agency Design for Environment Program

Note: listing the government examples will be helpful for businesses that must comply with these initiatives.
- b. Other Approaches
  - i. BizNGO: *Chemicals Alternatives Assessment Protocol*
  - ii. Hewlett-Packard approach to AA
  - iii. Lowell Center for Sustainable Production: *Alternatives Assessment Framework*
  - iv. SubsPort: Steps to Substitution
  - v. UCLA: multicriteria decision analysis

## 5. Simplify AA Process into Three Core AA Steps

- a. If the IC2 document clearly defined an AA as having a few number of clear steps that would be very helpful. Significant new material is not needed to do this. The IC2 Reference Document can highlight that the examples noted in the “Approaches to AA: Examples” include some form of the following three core AA steps:
  - i. Identify Chemical(s) of Concern (including characterizing end uses and functions)
  - ii. Identify Alternatives -- include the following sections under this step:
    1. Initial Evaluation Module [existing section 5a]
    2. Identification of Alternatives Module [existing section 5b]
  - iii. Evaluate and Compare Alternatives – include the assessment modules here.

For example, see the Lowell Center for Sustainable Production: *Alternatives Assessment Framework* (page 12). For simplicity, BizNGO recommends collapsing steps, such as the Lowell Alternatives Assessment Framework’s two steps of “Identify Targets for Action” and “Characterize End Uses and Functions” into a single step: “Identify Chemical(s) of Concern” and include characterizing end uses and functions into that step. In the Outline section above we highlight which sections in the IC2 Guidance for Alternatives Assessment document fall within each of these three core AA steps.

### b. Remove “scoping” as its own set of modules and divide into standalone parts

- i. The “scoping modules” are an amalgam of modules that span the discrete (“Initial Evaluation” and “Identification of Alternatives”) to the very broad (“stakeholder” and “decision”). As a concept, the modules under “Scoping” do not hold together as the modules do under “Assessment.” “Scoping” ranges from very broad theoretical frameworks to stakeholder engagement across all steps to discrete assessment-type modules.
- ii. Make “Stakeholder Involvement” its own section. Since stakeholder engagement is not a singular step, but something that can be happen at every step in an AA process, it’s important to highlight it as a high level action that crosses all steps. For this reason, BizNGO recommends having it clearly stand apart as its own section in the reference document.
- iii. Make “Decision” module its own section – “AA Decision Theory Frameworks.”
- iv. Include “Initial Evaluation” and “Identification of Alternatives” modules as part of “Identify Alternatives” steps.

## 6. Add “Identify Chemicals of Concern” Step

This section can be quite short to note that in chemical AAs begin from chemicals of concern, with the criteria used varying depending on the organization. For example, government criteria for chemicals of concern are based on a range of criteria that include carcinogenicity, mutagenicity, and reproductive toxicity (CMRs) as well as persistence, bioaccumulation, and toxicity (PBTs). Chemicals of concern are the starting point of AA as defined by this IC2 guidance document and therefore are part of an AA process. All the “Approaches to AA: Examples” included above start from a chemical or chemicals of concern to human health and/or the environment. BizNGO recognizes that there are many approaches to identifying chemicals of concern and IC2 does not need to prefer one or the other, it just should note how different government agencies identify chemicals of concern.

After all, the criteria used to identify a chemical of concern will inform what is defined as a safer alternative.

**7. Merge existing sections 4 (pages 26-30), 5c, and 10a into a new section titled “AA Decision Theory”**

We understand the heroic work that the IC2 TAAG did to create the decision frameworks based on amalgamations of existing approaches to AA. However, it is really hard to understand how to use these frameworks. In the spirit of creating an AA reference document, BizNGO recommends renaming these “AA decision theory frameworks” to reflect their comprehensive, overarching, and idealized nature.

Please let me know if you want any clarifications or to further discuss our comments.

Sincerely,



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**BizNGO Note on Public Comments and Statements**

*Participants in BizNGO are all working towards the use of safer chemicals in commerce. Reflecting the diversity of participants in the Working Group, we have a diversity of perspectives on government, NGO and industry initiatives. While BizNGO strives for consensus on all of its policy positions and all participants agree on the government policy issues we address, we may not achieve consensus on the specifics of every BizNGO policy statement.*