

May 29, 2009

Dr. Maziar Movassaghi  
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**Re: Draft straw proposal comments**

Dear Director Movassaghi:

Thank you for the opportunity to provide feedback to the Draft Straw Proposal presented at the Green Chemistry workshop in April. We congratulate you on this ambitious first step and would like to use this letter to provide specific feedback to certain sections of the document as well as answer questions that have been posed to our various organizations. Please note that this letter is a complement to the letter previously submitted by the CHANGE coalition and that we support the feedback presented by our colleagues.

**Chemicals of Concern**

We agree with the draft straw proposal's approach to identifying chemicals of concern and are pleased that the department is "casting a broad net."

We are also pleased to see that this process will establish a mandatory data set and chemicals for which there is not sufficient information to determine its safety will be considered a chemical of concern. However, we do not feel as though the SIDS data set is adequate and will not allow DTSC to properly assess a chemical. A more thorough data set that allows the agency to better understand both the short term as well as the chronic hazard traits associated with a chemical will serve the agency and will ultimately close the data gap that has plagued regulatory decision making for decades. The information provided in this data set must be sufficient to permit a reasonable evaluation of the safety of the chemical for human health and the environment.

There must be a regulatory penalty when the required data set is absent in order to motivate industry to produce the required information. At the very least, chemicals with insufficient data should be designated chemicals of concern and subject to some kind of regulatory response. We believe the appropriate response is that a mandatory data set should be required both for new chemicals before they are introduced into commerce and for all existing chemicals in commerce by a date certain as a condition for being permitted on the market. If it is not provided, chemicals should not have access to the market.

Also, industry should also be required to produce all health and safety information in its possession even if it is not part of the required data set. A required data set could be coordinated with and provide a basis for requests for further information under HSC § 25253(b).

**Priority Chemicals**

The prioritization criteria outlined in the Draft Straw Proposal indicates that manufacturers must disclose the use of a prioritized chemical of concern in consumer products. However, it does not require the notification of the use of a chemical of concern if that chemical does not end up in the product. Since the Green Chemistry Initiative has focused heavily on life-cycle impacts, including the health and

environmental impacts on local communities and workers from manufacturing processes, it would not be prudent to limit consideration to chemicals that are present in the final product. In order to best determine an appropriate regulatory response and to protect all Californians, it is critical that all uses of the chemical of concern be disclosed. DTSC may choose different responses based on the use of the chemical but without this information, any regulatory action will be incomplete.

The department should publish an action calendar every year, providing a timeline for regulatory responses on a specified list of products.

### **Alternatives Assessment**

We have significant concerns with how the alternatives assessment is laid out in the Draft Straw Proposal. Manufacturers conducting assessments is a recipe for disaster in that there is an incentive to hide critical information or manipulate data or the interpretation of that data. Furthermore, by allowing individual product manufacturers to conduct these assessments, DTSC runs the risk of being inundated with many different assessments with too much information for the department to process in a timely manner thereby creating a paralysis by analysis situation.

While the alternatives assessments must be paid for by industry, industry must not be allowed to conduct the assessments. Due to the nature of the assessment, the entity performing the assessment must be independent and free from industry influence. Therefore, we propose that a state controlled fund be established which is funded by chemical manufacturers and product manufacturers using chemicals of concern. These funds would then be used by DTSC to hire independent third parties to perform the assessment, which will allow the third party to work for the state and to be as free from industry influence as possible. There are already consulting firms on the market with the ability to perform these assessments in a timely fashion. We believe that the enabling statute does grant DTSC the authority to use existing fee-based funds to conduct these assessments initially but recognize that at some point in the future, a special fund should be created for this purpose.

Furthermore, not all assessments will be conducted in the same manner. While there may be occasions where DTSC finds it appropriate to conduct assessments based on individual products or product categories, in other cases, the assessment should be conducted on the chemical of concern and the different functions that it serves in many products or even on functional use that would capture several different chemicals of concern in one assessment (i.e. flame retardants). Because of this, it is impractical to have manufacturers conduct assessments due to the scope of the assessment and the information it must contain in order for DTSC to make regulatory decisions.

For a good summary of how to conduct an alternatives analysis, please see [http://sustainableproduction.org/downloads/FinalAltsAssess06\\_000.pdf](http://sustainableproduction.org/downloads/FinalAltsAssess06_000.pdf). This document is the foundation for the process we are recommending to fit DTSC's purposes

Each alternatives assessment should contain the following steps:

- **Identification of the target.** Since chemicals are used in a variety of applications and products, it is important for the agency to allow for flexibility in terms of the appropriate target for the assessment. The target will usually be a chemical or class of chemicals. Occasionally the "target for action" in an alternatives assessment may be a product or a functional use of a chemical itself. For example, a good chemical target may be phthalates or bisphenol A which have a few different functions but are used in many products. However, there may be instances in which it would also be appropriate for

DTSC to conduct alternatives assessments on finished products such as plastic water bottles or on chemical functions such as flame retardants.

- **Identification of the end uses of the target.** In instances where a chemical of concern is the target, the alternatives assessment must identify the different functions or applications of the target chemical. For some chemicals, there may only be a handful of uses whereas others have a wide array of applications. Identification of the functions will allow DTSC to prioritize product categories for action and make appropriate regulatory decisions. In cases where there are several different functions, DTSC may want to prioritize the functions which results in a chemical/class of chemical's use in the manufacture of or as an ingredient in the most consumer products. In the cases where the assessment is conducted on a functional use (i.e. flame retardants) this section may be used to demonstrate the different product categories that use particular chemicals to meet the target function. In instances where the target is a product itself, this section will identify the uses of that product.
- **Identification of the known and unknown hazard traits of the chemical of concern.** It may be safe to assume that due to a chemical being prioritized for action that its hazard traits will be well understood but for the purpose of the assessment and for evaluation of alternatives, it will be useful to have an understanding of hazard traits of the chemical of concern.
- **Identification of alternatives.** It is essential that the assessment consider not just the chemical alternatives for the target but that it also identifies the non-chemical alternatives such as a change in raw material or change in production. The following is an excerpt from the above report and appropriately summarizes this stage of the assessment: "Identification of alternatives may involve a broad market survey and literature review as well as interviews with appropriate experts who have a broad perspective. To achieve the greatest environmental and social improvement, it is important to view a wide range of alternatives. For instance, alternatives need to be considered that include: drop-in replacements, eliminating the function or need entirely, changing systems, and replacing products with services. Alternatives that are not yet readily available but may be available in the foreseeable future (or have technical or cost issues) should not be eliminated." (For a better understanding of how to conduct the broad market survey, DTSC may want to consider the Air Resources Board's method of conducting similar market surveys for their VOC regulation program.)
  - **Hazard traits of alternatives.** If chemical alternatives are proposed as part of the analysis, any known hazard traits should be made known at this point.
- **Evaluation of alternatives.** This is the portion where life-cycle thinking takes place. It will be almost impossible to know all of the tradeoffs of using an alternative chemical or process. However, in the alternatives identification process, the assessments need to outline as complete a list as possible of the life cycle considerations for the alternatives. As we discuss below, we recognize that there will not always be a perfect, completely safe alternative for a given chemical or use. Since DTSC will need to weigh one hazard consideration against another in such cases, guidelines or protocols must be established to aid final decision making.

It would be prudent for the state to audit a certain portion of the assessments to ensure reliability of data.

It is important to keep in mind that in order to ensure that the analysis is as robust as it can be, the department must institute a parallel process whereby data on hazard traits is collected and shared via the chemicals clearinghouse established by SB 509.

Finally, DTSC should have the ability to use assessments that have been conducted in other states or governmental entities, as long as such assessments are not solely industry driven. For example, Washington and Maine have conducted alternatives assessments and will continue to do so in an effort to better regulate these chemicals. California should not seek to duplicate work that has already been done unless the state determines that the information in the assessments is either substandard or out of date.

### **Evaluating the Alternatives Assessment and Determining Regulatory Responses**

Once in receipt of the alternatives analysis, the department must base its regulatory response on the information in the analysis. There may be several different scenarios that arise based on the alternatives evaluation and it is impossible to account for all of them here or in regulation. However, a clear set of rules governing decisions where a clear alternative is available or unavailable should be made part of the regulation as well as guidelines for how the department should evaluate imperfect alternatives.

Given that DTSC's authority is to regulate chemicals in consumer products (although the definition is broad), and the alternatives assessment are based on chemical use/ function, the only way to ensure proper regulation of consumer products is for DTSC to require ingredient disclosure in products.

When evaluating imperfect alternatives (alternatives that may have one or more hazard trait), it will be important for the department to establish clear rules for how these alternatives are weighed:

- Health and environmental considerations should always trump economic considerations. When faced with an alternative that may be more expensive, the agency should always be aware of the external and often unaccounted costs of health and environmental degradation. Poor public health and an unclean environment are far more costly to the state and to businesses in the long run and protecting the public should be the state's top priority in evaluating alternatives.
- Alternatives that pose a hazard to future generations should not be considered. Examples of unacceptable alternatives are chemicals that persist in the environment or bioaccumulate, even if there is no other hazard information available as well as those chemicals that interfere with genetics and have the ability to negatively affect future generations. There are other considerations that the department may want to consider as unacceptable alternatives in addition to those listed here but in general, alternatives that pose a hazard to future generations should not be considered.
- Not all products are necessary, especially when faced with imperfect alternatives. When faced with a difficult choice between imperfect alternatives, the department must consider if all of the applications of this chemical are necessary? For example, if there are no acceptable alternatives and the consumer product in question is not necessary for sustaining human life, it may be acceptable to ban the use of the product until an acceptable alternative becomes available.
- Practice continuous improvement. When faced with a choice between two imperfect alternatives, it is important for the department to institute a mechanism to conduct an additional alternatives assessment within a given time frame. In order to ensure that safer alternatives are developed, it will be important for the department to liberally use the

provision that allows for the development of a grant program funded by industry to develop alternatives.

DTSC has several different regulatory responses and there should be clear criteria for when each response is used. For all responses that allow a chemical of concern to remain on the market, DTSC should establish a time-limited use of the chemical in addition to other provisions that would accelerate the development of alternatives, limit exposure all along the supply chain and inform consumers of the presence of the chemical in the product. Moreover, some chemicals should not be allowed on the market regardless of the status of alternatives. The criteria for these chemicals are explained in the next section. Below is a partial list of criteria that are to be used when determining the appropriate regulatory response:

- *Imposing requirements for additional information:* Because we cannot assume a chemical is safe without adequate information on the hazard traits of a chemical, a chemical for which there is limited data is, by definition, a chemical of concern. This provision should be used for chemicals where there is very little information to determine if the chemical should be considered a chemical of concern. DTSC should not have to conduct an alternatives analysis before invoking this provision
- *Labeling:* This response should only be used in conjunction with another response. If DTSC chooses to require extended producer responsibility, a label should be required to inform the consumer on how to bring the product back. If the response is a multi-year phase out, a label indicating the presence of the chemical and its hazard traits should be instituted. Similarly, if there are no acceptable alternatives and the department chooses to establish a grants program, a label indicating the presence of the chemical should be used.
- *Restriction:* Restrictions should be used in the case where there are alternatives for some chemical functions but not all. Products that contain chemicals of concern with viable and safer alternatives should be required to use the safer alternatives. Products that contain chemicals of concern without viable or safer alternatives should be required to minimize exposure to the maximum extent possible and be subjected to other regulatory responses such as funding challenge grants, labeling and extended producer responsibility.
- *Prohibition:* When safer alternatives are available for all uses of a chemical, it should be prohibited from commerce. This includes both intentional and unintentional use of the chemical as well as uses that are only present in the manufacture of the product. In addition, as outlined below, there are those chemicals that are so egregious that their continued use in commerce would only further endanger public health and the environment. These chemicals are described in the next section.
- *Imposing requirements to limit or control access:* This regulatory response should only be used when there is no safer alternative to a chemical of concern and again, used in conjunction with other responses so as to accelerate the creation of safer alternatives.
- *Extended producer responsibility:* Again, this response should be used in conjunction with other responses such as requiring manufacturers to fund challenge grants and labeling. EPR works best when the manufacturer is taking the product back and retailers aren't responsible for establishing centers for collection. Coordinating with the Integrated Waste Management Board will provide a good model for how to structure this particular response.
- *Requiring the funding of green chemistry challenge grants:* This is a good regulatory response to use when there are no safer alternatives available for a particular use of a

chemical of concern. This response should be used in conjunction with other responses so as to minimize exposure to the chemical while safer alternatives are researched, as well as to inform consumers of the presence of the chemical in their product.

Since many of these responses are depended on whether or not a safer alternative exists, it is important to incorporate in a meaningful and systematic way to incorporate the concept of continuous improvement. Chemical uses for which there are no safer alternatives at the time of the initial assessment should be revisited periodically to determine if alternatives have been developed.

### **Chemicals must pass a safety test**

AB 1879 and SB 509 refer to several potential bases for regulating chemicals, including alternatives analysis (see HRC Section 25253(a)(2)) and "determining how best to limit exposure or reduce the level of hazard posed by a chemical of concern" (see HRC Section 25253(a)(1)). We interpret this to mean that if a safer alternative exists to a particular chemical, DTSC must take steps to restrict or phase out use of that chemical in order to protect environmental health and to promote use of the alternative. But we believe it also means that even where there is no safer alternative, industry should not be permitted to place or maintain a chemical on the market unless it can demonstrate with a reasonable certainty that the chemical is safe. We have outlined below which high hazard chemicals would most certainly not pass a safety determination but are committed to working with the agency to more fully determine what such a test should be.

### **Chemicals or products that will bypass the alternatives assessment process**

Some chemicals should skip the alternatives assessment process and move directly to regulatory responses. These can be divided into two categories:

1. Chemicals with incomplete data sets: As has been stated, the vast majority of chemicals have incomplete data sets and it is nearly impossible to evaluate whether or not they would be classified as a prioritized chemical of concern. This means that they are, by definition, chemicals of concern because we do not know what if any harm they pose to health and the environment. The department should not have to conduct an alternatives analysis prior to requiring that a mandatory data set be sent to the agency in a timely manner. This data set should include basic information about the physical properties of the chemical as well as more detailed information relating to the hazard traits of the chemical. DTSC will need to consult with the Green Ribbon Panel, other states and other stakeholders to determine the information required in the required data set.
2. High hazard chemicals: Some chemicals present such an unreasonable threat to public health and the environment that they need to be immediately phased out of commerce regardless of the presence of a viable alternative and without waiting for an alternatives assessment. These chemicals include chemicals that are considered to be PBTs (persistent, bioaccumulative and toxic), vPvBs (very persistent and very bioaccumulative) and CMRs (carcinogens, mutagens and reproductive toxicants) that are present in umbilical cord blood. The rationale for taking such an action without an alternatives analysis is that any alternative is going to be preferable to these chemicals that have long-lasting and sometimes irreversible effects to public health and the environment. In cases where such chemicals are used in life-saving devices for which there are no alternatives, the department should use its discretion to institute an appropriate timeframe in which to phase out such uses as well as offer time-limited conditional use permits where appropriate.
3. Products that, when they become waste, are banned from disposal in municipal landfills. When DTSC has already determined that a product is classified, at the end of its useful life,

as a hazardous waste, that assessment is sufficient to trigger a requirement that the manufacturer be responsible for the disposition of the waste. The department should require manufacturers to provide consumers with free and convenient ways to have these products recycled.

Thank you again for the opportunity to comment. We look forward to continue working together to implement this important program. Please do not hesitate to contact us if you have any concerns.

Sincerely,

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