Technical Questions and Comments on the So-Called "Thresholds" in the CTR Rule May 2019 Draft

Submitted by Amy D Kyle, PhD MPH

Overarching comments

I have been involved in numerous discussions about the thresholds with ARB staff and have attempted to understand what they think they are going to accomplish with the proposal and how they put it together.

Clearly, they have made a lot of judgements and decisions about what should be included and what will be excluded. These should be documented. Even "qualitative" considerations used in a decision process can be explained and written down. That should be done in this case.

Moreover, some analysis of what all of this will leave out of the inventory and the emissions reporting should be provided to the public. This table is incomprehensible as written, and there is no explanation or interpretation of the purpose and reasoning. ARB has not met its duty to demonstrate technical quality and scientific rationale.

Naming Individual Chemicals Without Addressing Substitution Has Not Been a Successful strategy

The approach proposed to name the particular sectors and chemicals may cause a move toward chemicals that are not on the list but are very similar. We have seen this in other contexts. Generally, such changes would be to very similar chemicals with different names. In another context, this is known as "regrettable substitution," where something that is listed is removed from a product or process but simply replaced by a chemical with the same functions that is not on the list. The example of Bisphenol A being replaced by Bisphenol B in consumer products is a classic example. But any strategy that relies only on names of particular chemicals may create similar incentives.

Generally, we are moving toward considering chemicals by class or use rather than only looking at one single chemical at a time. Flame retardants is a classic example where we have seen several cycles of chemicals being banned or proposed for a ban and then phased out but replaced by other chemicals that are just as environmentally harmful or worse.

What Exactly is the Approach to Naming Sectors?

There are different ways of conceptualizing and presenting "sectors." Table A-3 refers to "permitted" processes. A permitted process for a business is not necessarily going to be the same as the NAICS sector for the purpose of the business.

The way that the sectors were selected to be included in the source and emissions inventory according to staff representations is that Dunn and Bradstreet databases were searched to identify businesses that had classifications that might present concerns for toxics. However, the codes that would represent a business purpose as a whole might not necessarily represent all (or even any) of the actually permitted processes, which are much narrower. A process of interest (whether permitted or not) may represent a cost center for a business and not necessarily even a revenue source or a desirable business purpose.

EPA considers groupings at three levels in recognition of the different layers that may exist in a business organization between the business purpose as a whole and the specific processes that may need to be permitted.

What About Some Entry Numbers?

It would have been helpful to number the entries in Table A-3 as there is now no way to refer to a particular entry.

These are example of specific questions about table entries.

Page 1 of the table at A-44

Why do you include metal plating, anodizing or grinding only when it uses cadmium or chromium? Other metals that are harmful when inhaled are used in such activities. So why did CARB exclude them? This seems uninformed and arbitrary.

Why do you include plating in the second item on the first page for chromium, cadmium or nickel when in the prior item you included it only when chromium and cadmium were involved? Conversely, if you include nickel in the second item, what is the explanation for excluding it in the prior item? And, again, what about other metals used in these activities and that also have toxic effects on people who may inhale them? Why do you exclude all of them?

For item 3 on the first page, why do you exclude industrial gas manufacturing? How do you address the petroleum refining related compounds that are not currently being monitored around refineries? Would these be included and if so how?

For item four on the first page, why do you include the PBDE flame retardants but not others particularly those that have succeeded the PBDEs?

Why do you include 1,4-dioxane as a named chemical? What makes it so distinct from others that are equally or more toxic? The reporting threshold is too high if this is on a per facility basis. Highly toxic compounds should be reported at much lower volumes than ten pounds because of the potential for cumulative exposures.

The final entry on the first page of the table does seem like a real threshold based on fuel consumption as a proxy for combustion related emissions. This is more like what was discussed. However, what is the justification for excluding agricultural and medical sectors?

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Why do you name certain sectors for styrene? It would seem that all sectors would be relevant. Here the reporting threshold is 1 point per year. This should be the maximum for the highly toxic compounds When you have doses of concern down in the microgram range, a pound is a lot especially when there can be multiple sources. A huge amount of styrene is reported to be released in California.

Closing comments

The short review time, the complexity of the proposal, and the lack of meaningful explanation of the methods used make it very difficult to review this proposal. I hope that the examples will be helpful.

Perhaps the most important point is that it makes no sense to write inclusion and exclusion criteria for an inventory before you figure out what the sources are. And it is also hard for your partners and others to review it in a meaningful way.