Comments on Revisions to the Criteria and Toxics Reporting Rule and the Guidance for the "Hot Spots" Air Toxics

Proposed by the Executive Officer at the California Air Resources Board for 15-day review on March 30, 2021

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Key Points

Air toxics emissions are disproportionately distributed to environmental justice communities as a result of redlining that restricted locations for residential area, siting of large emitters in disadvantaged communities, and adverse actions and policies of institutions. It is widely recognized that emissions reductions are needed. Strengthening inventories of emissions of non-diesel air toxics is one important element of this.

The Governing Board adopted a regulatory package at its meeting in November 2020. The Executive Officer has proposed extensive additional revisions. Some reflect direction from the Board. Many are improvements or clarifications. These are concerns:

a. Toxic compounds have been arbitrarily removed from reporting.
b. The implementation period continues to be lengthened. It needs to reflect the pace of business so that provisions are implemented before they become outdated.
c. The amendments contain language that undermines direction toward consideration of the community context for emissions of air toxics to address disproportionate impacts
d. The proposal seems to weaken provisions for highly dangerous PFAS chemicals
e. Reporting by waste handling facilities should not be delayed for almost a decade.

The public engagement process for the 15-day review focused on emitters and air districts and did not engage community representatives. This is persistent issue.

Greater attention to integrating disparate components of air toxics programs through a cohesive strategy is needed.

Air toxics emissions are disproportionately distributed as a result of redlining that restricted locations for residential area, siting of large emitters in disadvantaged communities, and adverse actions and policies of institutions.

Disproportionate burdens of air pollution in environmental justice communities have not been effectively addressed by State and local air pollution control programs that focus at the regional scale or on individual facilities.

Passage of AB 197 [1] in 2016 and AB 617 [2] in 2017, along with years of effort among community organizations, pushed the California Air Resources Board (CARB) to pay attention to emissions in highly impacted communities. The Community Air Protection [3] under AB 617 created a constituency to push air pollution control agencies to address pollution at the community scale.

Concern has increased over structural racism at government agencies including CARB that contribute to disproportionate and excessive burdens of pollution in communities of color and lower income. There is also a national conversation about inequalities and the need for redress. President Biden has committed to pursue increased equality and recently appointed a White House task force to oversee efforts to achieve environmental justice. The Governing Board at CARB has made statements of commitment to reforms to increase equity and promote inclusion for agency employees and to identifying and eliminating structural racism in its programs and actions.

Strengthening inventories of emissions of non-diesel air toxics is one step toward actions to reduce disproportionate and excessive impacts. Development of improved rules for air toxics inventories has been underway since 2018 at CARB.

CARB has long had a mishmash of processes for collecting and presenting information about emissions of air pollutants. Systems were so divergent that even simple comparisons for individual facilities across pollution types were impossible.

The "inventories" of air emissions are key tools to track what is being emitted into the air and where. This is needed to analyze air pollution and design and assess control strategies. Ideally, inventories include all sources and have valid data about emissions that can be consistently tracked over time to see whether pollution control efforts are succeeding, whether emissions are shifted into communities of color and lower income, and whether reductions contribute to equity.

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[1] AB 197 (2016, E Garcia). An act relating to air resources. (Accessed Oct 30, 2020). https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB197

[2] AB 617 (2017, C Garcia). An act relating to nonvehicular air pollution. (Accessed Oct 30, 2020). https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB617

[3] California Air Resources Board. Community Air Protection. Web page. (Accessed Oct 30, 2020). https://ww2.arb.ca.gov/capp

CARB has several projects to update its approach to non-diesel air toxics emissions, including rule changes and systems development. In 2019, CARB creating a unified Criteria and Toxics Reporting (CTR) system. Emissions data for permitted facilities were to be reported to this system starting in 2020 for some sources.

Further work expanded the approach, leading to a second set of rule changes for both the CTR and updates to guidance for the "hot spots" air toxics program. This guidance provides leadership and direction to the 35 local air districts that implement permitting for stationary sources.

In November 2020, the Governing Board adopted a revision to the CTR rule and the 2588 "hot spots" inventory. This package included several provisions to address disproportionate impacts and improve community air protection.

The Board's action was towards improvements in validity, completeness, and transparency of data essential to understanding and addressing toxics emissions.

Critical needs addressed were to update the lists of substances considered as air toxics to represent products and processes in use today. Similarly, the types of facilities included were updated. These essential reforms were long overdue but much needed.

Changes to the guidance for the hot spots program added provisions suggesting that risk assessments be cognizant of impacts on populations affected by multiple sources of emissions requiring updating of assessment documents relied upon for prioritization. These changes reflect changes in institutional practices and requirements to address disproportionate burdens.

The Board also discussed consistency between lists of air toxics between the two sets of regulations.

Over several months, the Board discussed about the need for air pollution control agencies to adapt their data, tools, and methods to better reflect the community scale at which disproportionate impacts often occur. The focus at the regional scale for the criteria pollutants, combined with the districts' focus largely on the facility scale for stationary sources of air toxics, left a gap. Staff is to work on this and return for a briefing in the fall of 2021. This is part of the context for the approval of the rules in November.

On March 30, the Executive Officer published revisions to the adopted rules.

On March 30, 2021, the Executive Officer of the ARB released modified language for both the CTR rule and the AB 2588 "hot spots" inventory rules adopted by the Governing Board in November. The proposal amounts to more than 200 pages and includes extensive changes. Many of them provide useful clarification and in some cases new direction.

Some of the revisions put forth by the Executive Officer (EO) for changes to the criteria and Toxics Reporting rule and for the Guidance for the Air Toxics "Hot Spots" program implement direction from the Board. In particular, several changes and reorganizational steps were made to address the direction to make the lists of air toxics consistent between the two rules. This was appropriate.

However, some of the changes or accompanying text seem to be in conflict with the commitment to addressing disproportionate impacts and protecting the health of communities. These should be discarded.

a. Toxic Compounds Have Been Arbitrarily Exempted from Reporting

Perhaps the most significant improvement to policies in the rules adopted by the Board is the long overdue update to the list of substances to be considered as air toxics.

How4ever, the EO proposal is to remove from reporting substances for which there is no established "health value" or "toxicity value" adopted by an agency like a REL adopted by OEHHA.

There is no substantive rationale for this. Usually, toxicity values are developed both identification of hazard traits including toxicity combined with some evidence of presence or release. Even if a substance were extremely hazardous, it would not like be a priority to develop a toxicity value if it were not being used or emitted.

Compounds identified through the exhaustive review conducted by ARB staff were included in the list to be evaluated by the facilities subject to the rule. The facilities are to evaluate whether they emit (or in some case use) the substance. If they don't use it or release it, there is no reporting.

We would expect that some of the substances included on the list due to their hazard traits might be used or released in large amounts. We would also expect that some of the substances included on the list due to their hazard traits would not. This would then provide a substantive basis for proceeding to develop or seek out toxicity values. You would go on to develop toxicity values for substances that have high hazard traits and are being used or released. You would probably **not** go on to develop toxicity values for substances that have high hazard traits but that are not being used or released. It would not be a priority.

The EO proposed changes would turn this on its head. It would exempt substances for which a health value had not yet been adopted from review by facilities. So, facilities would not determine whether they were using or releasing that substance. There would not be any information to provide a substantiated basis to make a decision about whether to develop a toxicity or health value.

If you skip the ascertainment step and simply exempt toxic compounds, then what would ever cause the agency to go back and develop a health value? They would go into another black

hole of ignorance. Again, the people would assume the burden of uncontrolled releases for any of the compounds in use.

It may be important to acknowledge that local air districts have in the past ignored toxic air contaminants for which such health or toxicity values have not been adopted. This is an unfortunate practice. But it should not be condoned and expanded by CARB.

It is also relevant to note that the pace of development of such toxicity values can be very slow, in part because such evaluations are routinely contested and sometimes even litigated by vested interests.

It is appropriate to use provisional values developed under the Office of Environmental Health Hazard's (OEHHA's) existing method and used to provide a point of reference. In the meantime, the reporting data is needed to set priorities for developing the health values.

b. The phase in periods for reporting continues to be lengthened. Implementation needs to reflect the pace of business so that provisions are implemented before they become outdated.

Every version of these rules seems to push the timeframe for implementation of reporting out another year. If you take eight years to simply implement the rules, the lists for contaminants and facility types will already need to be updated.

For this program to be effective, the chemicals identified need to be updated at close to the pace at which as uses and releases change. The process needs to be designed to incorporate change as an expected event and not view the listings as a one off.

c. The amendments contain language that undermines direction toward consideration of the community context for emissions of air toxics to address disproportionate impacts

As noted above, the Board adopted changes to the guidance for the "hot spots" program that encouraged consideration of the community or population context in assessments of risks of toxic emissions. This is important to change institutional practices that contribute to disproportionate impacts. While not a complete solution, this was a tangible step toward addressing the Board's direction to take apart the elements of systemic racism. Language about how and when to consider population effects and multiple sources was added at several places into the guidance.

While it appears that this language has been retained, some additional language has been added to the materials and documentation for the rule that is contrary in emphasizing that the direction for the districts is voluntary. It also makes statements about the intent of the original statute that seem ungrounded.

This should be stricken and, if anything, replaced with a more nuanced discussion.

As has been noted in many scientific assessments including those issued by the National Academy of Sciences, it is essential as a matter of science to consider the context for a risk

assessment, and risk assessment methods need to provide for this. The context is not the same in every case.

Failure to consider the actual conditions in assessments and in making decisions is structural racism. We know that communities of color and lower income communities are disproportionately impacted by clustering of emitters and siting of large facilities. To clarify that the population level experience must be considered in determining risk is necessary step to begin to tangibly address these disproportionate impacts. This point needs to be considered as a matter of competent assessment methods and not as an "optional" step that a district might take. As a matter of both science and policy, it should become mandatory.

d. The proposal seems to weaken provisions for highly dangerous PFAS chemicals

Another important element of the rules adopted by the Governing Board in November is that they bring PFAS chemicals into the air toxics program. This is also long overdue but welcome.

The PFAS compounds have the most dangerous combinations of traits as they can be toxic, extraordinarily persistent, bioaccumulative, and mobile in water. Hundreds or thousands of them are distributed in commerce, and those in use are changing all the time time.

US EPA and chemical manufacturers hide the chemical identities of many PFAS chemicals, obstructing environmental management and health research. Environmental agencies have been largely negligent up to now in failing to take action to control these compounds.

The PFAS chemicals were among those listed with regard to functional chemicals groups. This was done to allow for inclusion of relevant compounds that emerge at a later point or for which chemical identify information is withheld or for which methods have not been made available. I don't see where this appears in the current draft, though the PFAS requirements have been changed and expanded in some ways, and the presentation is confusing.

The EO proposal also pushes back reporting for these supremely problematic compounds. Some of them are in a second reporting tier and some in the third. Yet a different set is identified for reporting by wastewater facilities but not until 2029.

Due to the high hazards of these chemicals, they should be moved back into the early inclusion group. It is imperative to begin to understand these emissions. Reporting should not be pushed back, and, if anything, accelerated.

The rationale for extended deadlines is to "provide facilities additional time to prepare for complying with the requirements. " Any facility will want extra time to prepare for complying with requirements. However, it is the responsibility of the Board and the districts to provide for the health of the people. In this case, these are highly dangerous compounds that should not be allowed to be emitted in any significant quantity, and deadlines to determine if they are present in emissions should not be extended.

The reasons given for this are time to be spent on data management and training and time for facilities to identify compounds. However, because the mix of compounds is not static and changes over time, delaying will not solve the problem of preparation. If you spend six years figuring this out, then whatever you decide to do will be outdated. ARB and the districts need to modernize their methods to be capable of addressing inputs that can be expected to change rather than to rely only on delays of reporting.

In the Modifications to Appendix D, In the second paragraph, with reference to the main table for Appendix D, the note would allow facilities to use alternative testing for PFAS-related compounds if the protocol includes substances in note 7. This would not replace functional definition. That will be needed because the combination of PFAS in use changes constantly. It may be appropriate to require the testing to at least include the substances in note 7 but the methods must also evolve over time to incorporate additional compounds that are identified and to use non targeted methods and estimates of total organic fluorine compounds to provide metrics for the amount of PFAS that may be present but not included on the current list.

e. Reporting by Waste Handling Facilities Should Not Be Delayed

The EO proposal creates a special class of facilities with special provisions for the "waste handling" sector. These are broken out in several places, (though seem to be missing from Table A-3.)

I agree that it makes sense to adopt special provisions for the waste handling sector for two reasons. One reason is cited in the EO revisions package. This subgroup is for facilities in this sector may not have control over or even knowledge of all of the substances delivered to their custody. This is a perennial problem especially for wastewater treatment plants. The degree to which this occurs differs among different types of facilities.

A second reason that these facilities make sense for a special category is because they may be good venues to sample the waste stream to identify substances that may be in use and, in this case, prone to being volatilized into the air. This could help to validate the current list of air toxics and identify how many compounds and which compounds rare not included but are showing up at waste facilities. This can aid in overall environmental management.

What has been done here is the an unfortunate in that CARB has simply deferred any reporting until 2029. This is not appropriate because these facilities can be major sources. So, some level of informative reporting should be initiated in the first round. These wastewater facilities are already dealing with PFAS and so it is not unreadable to start a reporting phase in at the early end.

Ideally, CARB and other Cal EPA entities at least including the Water Board should devise a feasible approach that can inform the toxics control effort as a whole, including both air and water, and that leads to development of better management strategy as well as sufficient emission control or zero discharge for these facilities.

This would seem to be a priority area both for investment of research dollars and technical resources to devise informative monitoring, technologies, and control measures to minimize emissions to communities. Clearly, the inventory process cannot manage all of this and perhaps has done the best they can by punting the issue down the road. This is another example of the need for CARB to develop a strategy for air toxics that integrates its several siloed divisions into a cogent approach in service of the people of the State.

This should also be seen as an on-going activity and not a one-off process that can be "completed." As the text rightly says, these facilities have to "address the complexity and diversity of potential toxic emissions from the waste streams they process." This is not something that will stop at some point. This is something that will continue to change over time and that needs to be addressed by a systems approach.

With regard to recycling and material recovery, as noted in Part 7, second full paragraph on page 6 of the outline of changes, with reference to Subsection IX.H(1)(d) – the EO revision would exclude recycling and material recovery facilities from source testing requirements. It is contradictory to argue on the one hand that such facilities need special treatment and extended deadlines because they have especially complex waste streams over which they have no control and then argue on the other hand that they don't have any potential for emissions.

e. Rule should retain reporting by "Facility" and not introduce new categories by "source."

The language proposed by the Executive Officer appears to adopt a level for reporting different than what has been in the previous texts going back to 2018.

This new language introduces a new concept of permitted v. unpermitted "sources" within a "facility." Elsewhere there is language about requirements that pertain to "processes." This is getting out of hand.

Previously, the unit for reporting was the "facility." Within a facility would be expected to be different sources that could be of different types. There are varying requirements for what attributes need to be reported for different sources depending on some various factors in various parts of the rules. The permits issued by districts are permits to operate for facilities.

In this proposal we see a distinction between permitted v. unpermitted sources within a facility. Apparently, the goal of this change is to create a distinction between these. However, there is no explanation of what this would mean or how it would relate to the permit to the facility or why it is even necessary. It should be stricken. This would seem to open yet another loophole for arguments for exclusion from reporting of sources that are "unpermitted" at facilities that are "permitted" to operate. How in the world would communities or the public or even the agencies be expected to sort all of this out? Especially given that information about permits is not available.

The public engagement process for the 15-day review focused on emitters and air districts and did not engage community representatives. This is persistent issue

CARB is right to engage businesses and industry organizations and to make sure that people who will be affected by regulations are aware of them and know what they will entail. The agency has been effective in doing this.

But there should be a commensurate commitment to engaging communities and community-based organizations to make sure that people who are affected by emissions and pollution are aware of the regulatory and guidance development processes and know what they will entail. The agency has bene entirely ineffective in doing this.

This has been going on for years. If you review the records for the existing guidance, you will no evidence of any engagement of any environmental justice organization or community. The very texts are written to be impenetrable to anyone not already well steeped in the subject matter. They are presented so that the relationships among the various parts are undocumented. They are full of exemptions and exceptions and places where every district can make up their own rules.

This is a larger problem than just the development of these rules. But CARB should stop claiming that stakeholders in the environmental health and justice communities have been or could be engaged by the strategies they are using. These rules are worked out between CARB, the districts, and the emitters.

We need a cohesive strategy to bring together disparate components for air toxics into an effective program for communities

As a general comment that probably should be directed elsewhere, the air toxics program (and its stakeholders) would benefit from greater coordination and integration among its many pieces. It seems time for a written strategy for the air toxics program as a whole. Actions taken in one area, such as this one, have implications in other areas. There is no mechanism to comment on or even identify these. I have found that staff are interested in comments about what is within their immediate control. But it is not clear if anyone is in charge of making the effort succeed as a whole.

Specific Technical Comments

Specific Comments

Notice of Availability of Modified text for the Proposed Amendments to the Emission Inventory Criteria dn Guidelines Report for the Air Toxics “Hot Spots” Program

Other changes to Appendix C

Here and elsewhere, the staff are continuing to try to improve the formatting and usability of the data table, and this is appreciated.

One additional improvement would be to use two columns for the emittent ID and the CAS number. There is an entry for every substance for the emittent ID, which can be the CAS number but is not always the CAS number. It is a continuing hassle to try to match these data fields because of the differing types of identifiers used in this one column. One way to make that simpler would be to list the ones that are CAS numbers in a separate column (as well as in the emittent column when used as emittent ID). This could be done on a "supplemental" version of the data table available as a download rather than in the printed version if preferred. It would reduce the need for manual manipulation of the data.

Point 12, Table E-3 bullet points for Sector 49 and 50: These points change the criteria for inclusion for certain types of facility to a throughput metric rather than an emissions metric. This is not necessarily a bad idea but justification for these particular throughput levels is needed. These seem very high and likely to generate emissions of concern. Even if quantification is difficult, that should not be grounds for excluding a facility if the emissions have any potential to include air toxics, which seems highly likely in these cases.

Rather than setting an arbitrary and unsubstantiated threshold, ARB could set a provisional throughput level and then establish monitoring follow-up to determine whether emissions of concern occur at that threshold or below. After a set trial period of perhaps one or two years the adequacy of the throughput measure can be evaluated with actual information. Some provision for early review in the event of community impact or complaint would also be needed.

In the CTR revisions

- I think there should be a definition of NAICS codes as there is for SIC codes
- With regard to the change in the threshold for reporting of toxics to 10 tpy of criteria pollutants to 4 tpy – it is very late to make this change. This should have been raised and addressed earlier so that it could have been substantiated and discussed. The area covered in the Group B is very large. If this exclusion is adopted without any substantiation of its impact, it should adopt on a provisional basis with a review of the impact and the need for any exceptions done afterwards and revisions made if necessary.
- Facilities v. processes – the change to 93404(c)(1)(B) regarding activity level reporting for the facility level v. the process level – this seems to be very confused in this version of the rule. Previously, the facility level was the level for reporting (and permitting). Now in various places there are distinctions being made between the permitted facility and the permitted process. How man

processes can be at a facility? What does that do to the activity thresholds? This has not been vetted or discussed and should not be changed at this late date.