



November 12, 2024

Aniela Burant  
California Department of Pesticide Regulation  
1001 I Street, PO Box 4015  
Sacramento, CA 95812-4015

By email: [aniela.burant@cdpr.ca.gov](mailto:aniela.burant@cdpr.ca.gov)

RE: Comments on Draft AMN Report for 2023 and response to comments on Draft AMN Results for 2020-2022

Dear Ms. Burant,

Thank you for the opportunity to provide comment on the 2023 Air Monitoring Network Report. We appreciate the Department's investment of time and resources in collecting and analyzing this air monitoring data and releasing the draft 2023 report in a timely manner. We appreciate that the Executive Summary begins by listing the 8 pesticides monitored which were detected, states the number of AMN sites where these pesticides were detected and discloses the fact that the highest chloropicrin sub-chronic level was 93% of DPR's screening level.

We understand that none of the detections exceeded DPR's screening levels or regulatory levels. However, the conclusion that the pesticide air levels monitored are "unlikely to be harmful to human health" is too far reaching because 1,3 D and chloropicrin air levels exceed target levels recommended by OEHHA at one or more locations. The statement "Screening levels are set well below the level at which health effects are expected to occur" is also clearly false for the MITC and Chloropicrin Acute 24-hour screening levels of 220 ppb and 73 ppb.

The MITC acute screening level was set over OEHHA's objections because 220 ppb was the "no effects" level in a toxicology study, leaving no margin of error.<sup>1</sup> The DPR TAC report<sup>2</sup> and risk assessment<sup>3</sup> also established an 8-hour reference level of 22 ppb for protection against irritation to the eyes and respiratory system. We conclude that this should be adjusted to 7.3 ppb as a 24-

---

<sup>1</sup> <https://oehha.ca.gov/media/downloads/pesticides/report/mitcmitigationmemooehhamay2006.pdf>

<sup>2</sup> DPR Toxic Air contaminant Assessment for MITC. August 2002

<sup>3</sup> DPR Risk Characterization for MITC. July 2003; DPR Risk Characterization for Metam Sodium. July 21, 2004  
<https://www.cdpr.ca.gov/docs/risk/red/metam.pdf>

hour target exposure level. We raised these concerns in comments on the 2019 and 2020-2022 Air Monitoring Reports, but no change has been made.

This Department response to our previous comments about the MITC Acute Screening Level in the finalized 2022 AMN report did not address any of the specific concerns we raised:

*“DPR's Regulatory Targets are established following a formal risk assessment of the chemical's toxicity and potential exposures, superseding Screening Levels.”*

The acute regulatory target for chloropicrin of 73 ppb used in DPR AMN reports as a 24-hour average exposure target level was set in a Risk Management Directive (RMD)<sup>4</sup> as an 8 hour average, so at the very least we conclude that it should be adjusted to 24.3 ppb as a 24 hour level. Furthermore, this 73 ppb target level was set in a RMD over the objection of OEHHA.<sup>5</sup> The chloropicrin TAC report<sup>6</sup> and risk assessment<sup>7</sup>, which are also supported by OEHHA, include a 24 hour reference level of 0.92 ppb for protection of children.

This Department response to our previous comments about the Chloropicrin Acute Screening Level does not address any of the specific concerns we raised:

*“This report does not encompass a discussion of toxicological studies or the factors considered in Risk Characterization Documents or Risk Management Directives, nor does it involve adjustments to the established 8-hour (e.g., 73 ppb as an 8-hour average for Chloropicrin) or 72-hour (e.g., 55 ppb as a 72-hour average for 1,3-D) levels.”*

### **Comments on presentation of results**

Once again, we object strenuously to leading off the discussion of results in both this report and the PREC presentation with a statement that 4.7% of sample analyses resulted in quantifiable detections. This is highly deceptive and completely misleading. Both this statement and Table 3 should be stricken from the report. We note that Table 3's heading and second column go beyond being misleading and are wrong in referring to total samples rather than total analyses.

The percent of detections of all pesticides analyzed at all sites uses a deceptive highly inflated denominator because use of most pesticides is concentrated in certain months in specific geographic areas. In addition, not all the pesticides monitored are used near all of the monitoring sites because pesticide use varies by crop and region. Moreover, 17.5% of the pesticides and breakdown products monitored are no longer registered for use in California so are not expected to be detected.

When we expressed concern about this misleading statistic in comments on the previous draft AMN report, the Department's response in the Final 2022 AMN report was:

---

<sup>4</sup> <https://www.cdpr.ca.gov/docs/emon/pubs/chloropicrin/directive.pdf>

<sup>5</sup> Chloropicrin- OEHHA comments on DPR's Draft Risk Management Directive (RMD) December 29, 2010

<sup>6</sup> DPR Toxic Air contaminant Assessment for Chloropicrin. February 2010

<sup>7</sup> DPR Risk Characterization Document (For chloropicrin exposure of Workers and the General Public) November 2012

*“The scientific objectives of the AMN, as outlined in the Introduction, emphasize DPR's focus on monitoring pesticides in the ambient air and comparing measured concentrations to screening levels or regulatory targets. It is important to note that the count and percentage of detections serve only to provide an overview of the patterns identified in the report. Therefore, they should be interpreted solely in that context. “*

This answer does not respond to our concerns about the misleading nature of the overall percent detections number. Furthermore, in making the overall percent detections the headline in this year's news release for the AMN data, the Department took the percentage of detections of total analytes completely out of context as well as misstating it as percent samples with detections. This false statement was then amplified in a number of news stories. Then the Department merely changed the online news release text to “sample analyses” without an explanation of the initial error, and did not reissue the news release to the public with the correction. This was not an adequate acknowledgement or correction, and it reflects badly on the credibility of the Department.

We appreciate that the pesticides with the highest number of quantifiable detections are highlighted at the top of Table 2. Table 2 should also identify the pesticides and breakdown products which are no longer registered so not expected to be detected, with an asterisk and table footnote. These 7 chemicals comprise 17.5% of the chemicals monitored (chlorpyrifos, chlorpyrifos OA, endosulfan, endosulfan sulfate, methidathion, oxydemeton methyl and pp-dicofol), and also comprise one third of the 21 chemicals not detected in 2023. Since they are no longer registered, detections are not expected. We understand that these chemicals continue to be included because they are high toxicity and are part of the 36-pesticide residue screen. We have no objection to including them in air monitoring as long as it is explained that detections are not expected.

Table 4 presents the percent of sample sets at each location with at least one detection. This is key information which should also be included in the Executive Summary. In total sample sets analyzed at each AMN site, 58.8% (Watsonville), 80.8% (Santa Maria), 84.6% (Shafter), 90.4% (Oxnard) had at least one pesticide detection.

It would be helpful if there were summary tables added for each pesticide detected at quantifiable levels, with the highest acute and sub-chronic and average annual air concentrations and number of detections at each AMN site, in addition to or instead of tables of the highest levels.

Useful tables included in the DPR PREC presentation which we recommend adding to this report after combining with 1,3 D results are:

Number of Quantifiable Detections (by pesticide and %) at Each Location (slide 14)

Highest Acute Concentrations and % Screening Level by Location (slide 16)

Highest Subchronic Concentrations and % Screening Level by Location (slide 17)

Annual (Chronic) Concentrations and % Screening Level by Location (slide 18)

We note below that the highest chloropicrin acute concentrations were very similar at Santa Maria, Oxnard and Watsonville.

### **Acute 24-hour Exposure and Screening Levels**

Table 5 correctly notes that the Acute screening levels for Chloropicrin and MITC are 8-hour TWA levels rather than 24-hour TWAs. An adjustment should be made, however, because an 8 hour TWA concentration may not be protective for a 24 hour exposure. As detailed above, these regulatory target levels were set over the objections of OEHHA and are substantially higher than the reference levels derived in DPR Toxic Air Contaminant and Risk Characterizations.

We are concerned that the highest Chloropicrin 24-hour concentration measured at the Santa Maria AMN site (1.2 ppb) and similar high concentrations at the Oxnard AMN site (1.1 ppb) and Watsonville AMN site (0.99 ppb) exceed the 24-hour reference level of 0.92 ppb for protection of children established in the chloropicrin TAC report and DPR risk assessment and supported by OEHHA.

We are also concerned that Table H-9 of Santa Maria highest acute air levels shows an upward trend for both chloropicrin and MITC. We are also concerned that Table H-13 shows that the highest acute air levels of MITC have been trending upward at the Shafter AMN site since 2020.

### **Sub-chronic Exposure**

We are concerned that the highest sub-chronic MITC rolling concentrations at both Shafter and Santa Maria sites were almost 7-fold higher than peak sub-chronic concentrations measured in 2022<sup>8</sup>, and the highest sub-chronic chloropicrin concentration rose over 2-fold at the Watsonville AMN site and almost doubled at the Santa Maria site between 2022 and 2023.<sup>9</sup> We are also concerned that Table H-14 shows that the highest seasonal air levels of MITC have been trending upward at the Shafter AMN site since 2020. These changes and trends should be mentioned in the report.

We note that the response to our previous comment about change in averaging time for 1,3 D and chloropicrin does not address our concern that this change was not reviewed by OEHHA or subject to any other peer review:

*“In 2017, DPR’s HHA branch published the outcomes of their dedicated efforts, utilizing available data and evolving science to update Screening Levels for 1,3-D and Chloropicrin. Their analysis revealed that the appropriate sub-chronic Screening Level for 1,3-D is 3 ppb over a 13-week period. Similarly, for chloropicrin, the data indicated that the appropriate sub-chronic Screening Level is 0.35 ppb over a 13-week period.”*

---

<sup>8</sup> MITC Sub-chronic concentrations:

Shafter 2022: 0.099 ppb (9.9% SL) 2023: 0.67 ppb (67% of SL)

Santa Maria 2022: 0.068 ppb (6.7% SL) 2023: 0.45 ppb (44.8% of SL)

<sup>9</sup> Chloropicrin Sub-chronic concentrations:

Santa Maria: 2022: 0.11 ppb 2023 0.2 ppb (58.9% SL)

Watsonville: 2022 0.092 ppb (26.3% SL) 2023 0.22 ppb (65.4% SL)

### **Chronic Exposure (1-year average concentrations)**

It is concerning to note that the annual average MITC air concentration rose 4-fold at the Shafter AMN site and 3.7-fold at the Santa Maria AMN site from 2022 to 2023<sup>10</sup>, and that the annual chloropicrin air concentration more than doubled at the Watsonville AMN site.<sup>11</sup>

### **Cancer risk estimates**

It is deeply troubling to see that cumulative average air concentrations at all 4 AMN sites continue to exceed OEHHA Cancer No Significant Risk Level (NSRL) for 1,3 D.

The chloropicrin reference concentration of 0.24 ppt for controlling cancer risk to the 1 in a million level was established in the DPR Chloropicrin TAC and Risk Characterization documents as the negligible risk level and was supported in review by OEHHA and the TAC Scientific Review Panel. DPR subsequently made a unilateral decision that chloropicrin cancer data was equivocal and that an additional study was needed to assess cancer risk. The second phase of this study is currently in process after repeated delays. In the meantime, we are left with great uncertainty about the cancer risk from exposure to chloropicrin.

Captan and malathion should be added to the list of carcinogenic pesticides being monitored. Both are listed as carcinogens under Proposition 65 and Safe Harbor NSRLs have been set.<sup>12</sup>

### **Summary**

It would be helpful to include more information in the concluding summary including observations we have noted above.

### **Appendix H: Comparison to Previous Years of AMN Data**

Tables H-2 and H-3 which show trends of percent detections for total analyses should be deleted because this statistic is misleading and irrelevant.

The tables of highest acute and seasonal air concentrations and average annual air concentrations of each chemical at each AMN site include important information that should be presented earlier in the report, with highlights integrated into the concluding summary. We note with concern that Table H-9 of Santa Maria highest acute air levels shows an upward trend for both chloropicrin and MITC. We are also concerned that Tables H-13 and H-14 show that highest acute and seasonal air levels of MITC have been trending upward at the Shafter AMN site since 2020.

These tables of historic air concentrations at each AMN site should list captan, fenproxymate, methomyl and pendimethalin as “-“ or “not measured”, not ND between 2019 and 2021 because they were not monitored until 2022.

---

<sup>10</sup> MITC Chronic (1 year average) concentrations:  
Shafter 2022: 0.017 ppb 2023: 0.068 ppb (68.1% SL)  
Santa Maria 2022: 0.012 ppb 2023: 0.044 ppb (44.3% SL)

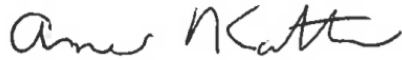
<sup>11</sup> Chloropicrin Chronic (1 year average) concentrations:  
Watsonville 2022: 0.028 ppb 2023: 0.061 ppb (22.8% SL)

<sup>12</sup> <https://oehha.ca.gov/proposition-65/general-info/current-proposition-65-no-significant-risk-levels-nsrls-maximum>


**Conclusion**

We urge you to carefully review these comments. We appreciate all the time and resources that DPR puts into maintaining the AMN sites. A more straightforward and comprehensive presentation of the data will better serve both the public and the Department. Please contact Anne Katten if you need clarification on any of these points.

Sincerely,



Anne Katten, MPH, Pesticide and Work Health and Safety Specialist  
California Rural Legal Assistance Foundation  
[akatten@crlaf.org](mailto:akatten@crlaf.org)



Jane Sellen and Angel Garcia, Co-Directors  
Californians for Pesticide Reform

Margaret Reeves, PhD, Staff Scientist  
Pesticide Action Network