



Department of Pesticide Regulation



Mary-Ann Warmerdam
Director

MEMORANDUM

Arnold Schwarzenegger
Governor

TO: Catherine Witherspoon
Executive Officer
Air Resources Board

FROM: Mary-Ann Warmerdam
Director
(916) 445-4000

DATE: December 2, 2005

SUBJECT: PROPOSED TOXIC AIR CONTAMINANT MONITORING FOR 2006

Pursuant to Food and Agricultural Code section 14022(c), the Department of Pesticide Regulation (DPR) requests that the Air Resources Board (ARB) monitor for the following pesticides in 2006:

- acrolein
- 1,3-Dichloropropene
- methyl bromide
- sodium tetrathiocarbonate breakdown products carbon disulfide and hydrogen sulfide

DPR requests that ARB monitor one or two application sites for acrolein because it has moderate pesticidal use and high volatility. In addition, both ARB and the Office of Environmental Health Hazard Assessment (OEHHA) have an interest in the nonpesticidal exposures to acrolein. This monitoring will help give all agencies a more complete picture of the overall risk. Acrolein is used as a pesticide primarily as an aquatic herbicide in irrigation canals. Monitoring this type of application will be challenging because this is essentially a moving area source. Ideally, ARB would monitor the first application during the spring and report preliminary results during the summer of 2006. This will enable DPR staff to determine if the data are suitable for estimating exposures. If they are, no other monitoring would be necessary. However, if the data cannot be used to estimate exposures, we would recommend changes in the monitoring plan and request that ARB monitor another application during the fall.

We request ambient monitoring for 1,3-dichloropropene and methyl bromide because the 2005 monitoring was delayed due to laboratory problems, and the peak season was missed. ARB should repeat the monitoring in Ventura County. We will recommend the time period after evaluating the most recent pesticide use data, but monitoring should probably occur for an eight-week period sometime between May and August.

DPR also requests application-site monitoring for carbon disulfide as the pesticidal agent and breakdown product of sodium tetrathiocarbonate. Monitoring for the hydrogen sulfide



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breakdown product may also be needed. DPR staff will soon initiate the risk assessment for this compound, and air monitoring data will be essential to determine exposure and if control measures are needed for this toxic air contaminant. We will recommend the location and time period for monitoring after evaluating the most recent pesticide use data, but monitoring should probably occur in the San Joaquin Valley during the spring or fall. Based on a preliminary assessment of the toxicology data, we request the following target quantitation limits:

- acrolein 0.7 $\mu\text{g}/\text{m}^3$
- 1,3-Dichloropropene 0.5 $\mu\text{g}/\text{m}^3$
- methyl bromide 0.1 $\mu\text{g}/\text{m}^3$
- carbon disulfide 0.5 $\mu\text{g}/\text{m}^3$
- hydrogen sulfide 10.0 $\mu\text{g}/\text{m}^3$

Thank you for your consideration of this request. Please feel free to contact me, or John Sanders, Chief of DPR's Environmental Monitoring Branch, at 324-4155, if you have any questions.

cc: Joan Denton, Director, Office of Environmental Health Hazard Assessment
John Sanders

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bcc: Jim Behrmann, ARB Research Division
Lynn Baker, ARB Stationary Source Division
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