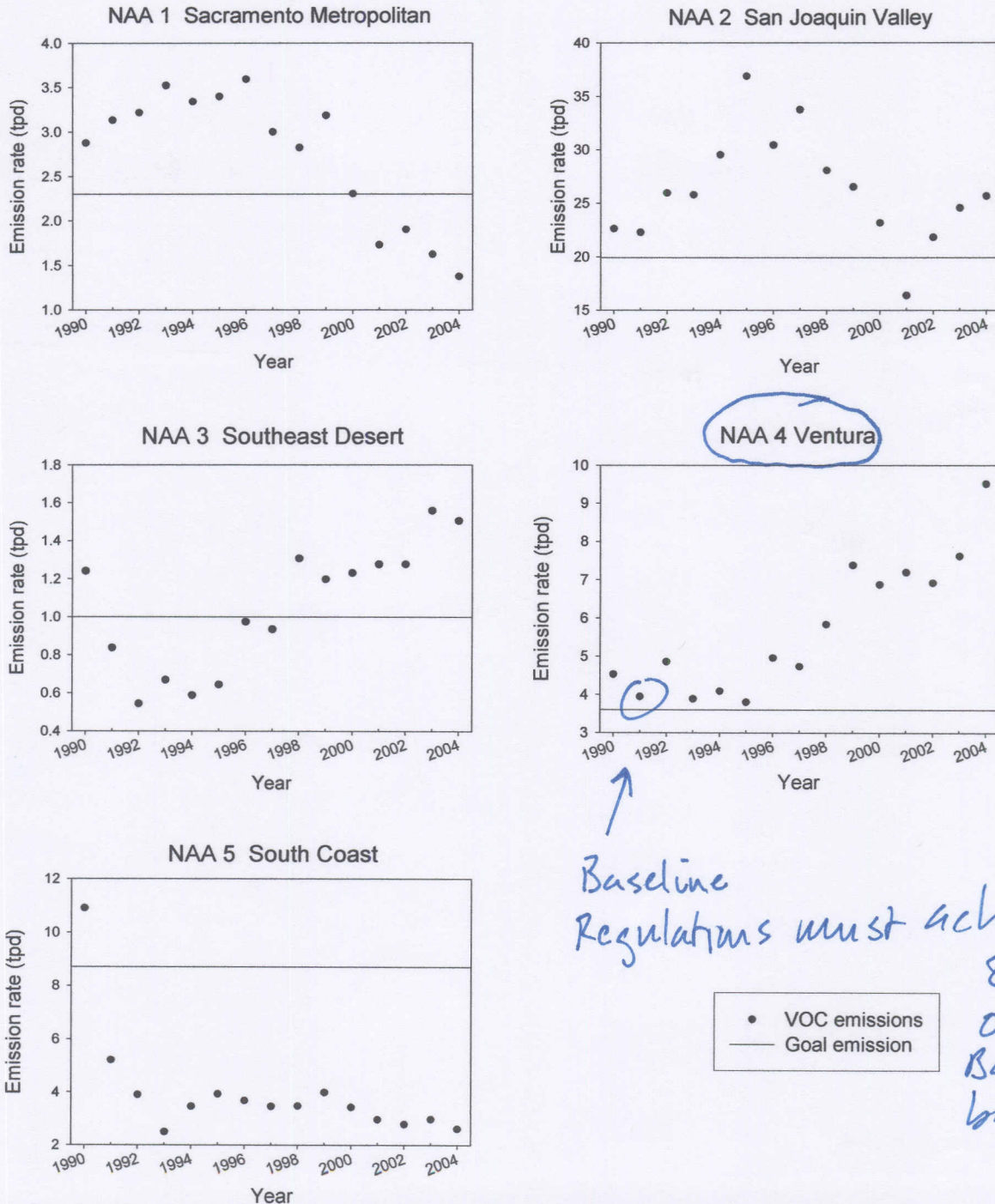


2004 inventory
 without DPR "method-use
 inventory adjustment
 07-9-5
 Brent Newell

Figure 1. Annual ozone season pesticide VOC emissions by NAA. For simplicity and ease of comparison with previous reports, these figures use 1990 as the base year and a 12% reduction for San Joaquin Valley.



Baseline
 Regulations must achieve
 80%
 of
 Baseline
 by 2005

07-9-5
Brent Newell

September 26, 2007

TO: Brent Newell, CRPE

FROM: Brian Hill, PANNA and Anne Katten, CRLA Foundation

RE: Comments on ARB's Environmental Analysis

MITC is reactive and has similar toxicological endpoints to ozone

Staff analysis is that "[Methyl bromide and methyl isothiocyanate-generating] fumigants have very low photochemical reactivity, indicating that they do not appreciably contribute to ozone formation."

MITC does not have very low reactivity. It is actually somewhat higher than ethane. MITC produces approximately 0.35 grams of ozone for each gram released into a test chamber in comparison to ethane at 0.31 grams of ozone for each gram released into a test chamber.

"Compounds that are more reactive than ethane continue to be considered reactive VOCs and subject to control requirements."¹

Additionally, MITC has similar toxicological endpoints to ozone, causing respiratory irritation and disease including asthma. Therefore its unreacted form may significantly compound the health effects of ozone.

Staff Acknowledges a Significant Adverse Impact which Requires a Statement of Overriding Consideration

Staff analysis is that "the proposed revision may have a significant adverse impact on air quality in the short term."²

The best available understanding of fumigant contributions ozone formation is in agreement with this conclusion.

¹ "Interim Guidance on Control of Volatile Organic Compounds in Ozone State Implementation Plans," 70 FR 54046, <http://www.epa.gov/fedrgstr/EPA-AIR/2005/September/Day-13/a18015.htm>.

² "Environmental Analysis for the Proposed Revision to the Pesticide Commitment of the 1994 Ozone SIP for the Ventura County Nonattainment Area," <http://www.arb.ca.gov/planning/sip/2007sip/apr07draft/ventanalysis.pdf>, page 2. See also discussion of alternative 3 on page 5, where staff acknowledges "the significant adverse impact on air quality" of the current levels.

Choosing an alternative that has a significant adverse impact relative to the no-project alternative requires a "statement of overriding consideration" under CEQA.

ARB does not explain why DPR "Anticipates" a Negligible Health Risk from Exposure to Fumigants in Ventura and we continue to conclude that toxic impacts need to be analyzed and may well be significant

ARB acknowledges that DPR is still in the process of assessing the risk of exposure to chloropicrin and does not explain how they reconcile this "anticipation of negligible health risks" when results their own monitoring in Santa Cruz and Santa Barbara found levels well above OEHHA's Acute Chloropicrin REL. Air monitoring conducted by ARB in November of 2003 around a bedded chloropicrin fumigation in Santa Cruz county included 22 of 68 samples above the OEHHA Acute REL, with a maximum measurement of 150 ug/m³, well over 4x the OEHHA acute REL. Samplers were located 160 feet from the edge of the 4.8 acre field and 300 lb/ac of Tricon (50% chloropicrin, 50% methyl bromide) was applied. ARB concluded that "levels of chloropicrin in the air during the study are likely due to contributions from both the test plot as well as adjacent or nearby prior applications. In addition, rain occurred during and following the application."³ The subsequent ARB chloropicrin drip application monitoring study in October, 2005 in Santa Barbara county measured levels exceeding 10x the OEHHA Acute REL at monitors 60 feet from the field.⁴

Additionally, in September of 2006, in San Bernardino county, two separate tarped shank injection applications of pure chloropicrin caused illness symptoms of burning eyes, coughing, vomiting and breathing difficulties in 35 people working or living up to 320 feet from the edge of the fields. No violations were found in the incident causing the most (26) illnesses. The County Agricultural Commissioner concluded that he does not intend to issue any chloropicrin permits in the future due to the apparent inability to adequately mitigate all potential adverse effects of using this fumigant in the county.⁵

The analysis makes no mention of the fact that DPR's 1,3 D risk assessment is currently under revision due to possible adverse effects identified in toxicology studies of systemic toxicity and short-term exposure.⁶ This risk assessment status report also indicates that possible adverse effects were found in chloropicrin genotoxicity and teratology studies.

³ Air Resources Board 2005. Final Report for the 2003 Application Air Monitoring for Chloropicrin in Santa Cruz

County http://www.cdpr.ca.gov/docs/emon/methbrom/chlorpic_pubs.htm

⁴ Air Resources Board. 2006. Report on Pesticide Air Monitoring Around a Field Application of Chloropicrin in Santa Barbara County. October 2005.

http://www.cdpr.ca.gov/docs/emon/methbrom/chlorpic_pubs.htm

⁵ San Bernardino County Pesticide Episode Closing Report for Priority Investigation 30-SBD-06. December 7, 2006.

⁶ Department of Pesticide Regulation Memo: Report 49 Prioritization and Status Report of Active Ingredients for Risk Characterization. March 16, 2007.

<http://www.cdpr.ca.gov/docs/risk/riskassessment.htm>

ARB's Analysis of Methyl Bromide and 1,3 Dichloropropene Air Monitoring is Incomplete and Misleading

ARB states that results of its monitoring in Ventura during 2005 and 2006 show that air concentrations of 1,3 D and methyl bromide are acceptable even compared to OEHHA's lower methyl bromide sub-chronic REL. In our opinion the 2005/06 monitoring did not capture worst case exposures because it was not conducted close enough to areas where fumigant use was highest. In addition, the analysis fails to mention that OEHHA's REL was exceeded multiple times in monitoring conducted in Ventura county by industry in 2001 and 2002^{7 8 9} and in 2000 and 2001 in ARB monitoring in Monterey and Santa Cruz counties where fumigant use patterns and meteorological conditions are similar to that in Ventura county. Lastly, if methyl bromide use levels are allowed to increase by 0.6 tons/day, air levels can be expected to increase substantially above levels recorded in monitoring in previous years.

This analysis only compares 1,3 D levels measured in 2005 and 2006 to an out-of-date DPR acute reference concentration. No attempt has been made to estimate cancer risk, a more sensitive endpoint, for either 1,3 D or methyl bromide or to evaluate whether cancer risk could be above the 1 in one million level with projected levels of 1,3 D use.

Department of Pesticide Regulation's Reference Level of 1 in 100,000 for "Acceptable" Telone (1,3 dichloropropene) Cancer Risk Carries an excessive Health Impact

We are concerned that a recent DPR Memorandum discussing a possible relaxation of the Telone (1,3 dichloropropene) use cap in some townships of Ventura county¹⁰ both lends support to the idea of allowing increased use of the highly reactive and carcinogenic fumigant Telone in Ventura county and states that DPR's reference level for cancer risk from Telone exposure is 1 in 100,000 rather than the more public health protective standard of 1 in 1 million.

⁷ Alliance of the Methyl Bromide Industry methyl Bromide Air Monitoring in 2001 in Santa Barbara and Ventura Counties

http://www.cdpr.ca.gov/docs/emon/pubs/tac/tacpdfs/rpt_0402.pdf

⁸ Alliance of the Methyl Bromide Industry Methyl Bromide Air Monitoring: Ventura, Santa Cruz and Monterey Counties. July – October 2002

<http://www.cdpr.ca.gov/docs/emon/pubs/tac/tacpdfs/ambi03.pdf>

⁹ AMBI Memorandum responding to DPR Comments on AMBI 2001 and 2002 Reports. June 3, 2003. http://www.cdpr.ca.gov/docs/emon/pubs/tac/tacpdfs/ambi03_corr.pdf

¹⁰ Department of Pesticide Regulation Memorandum from Bruce Johnson to Tobi Jones. Simulation of Concentrations and Exposure Associated with the Dow Agrisciences-Proposed Township Caps for Ventura County for 1,3-Dichloropropene.

07-9-5

Randy - FYI
Judy

Judy P.
Brent Newell

February 13, 1997

To: Paul Gosselin
From: Mark Pepple
Subject: 1990 VOC Emission Inventory

The current draft workshop package includes a pesticide VOC emission inventory for the years 1990-1995. The 1990 base year figures are those estimated by the ARB using their current methodology.

In the SIP, we state that the 1990 figure will be based on a backcast of 1991 data. It is uncertain when the ARB will provide the backcast figure.

In the meantime, there is another option (called the PUR option) for calculating the 1990 base year. This option involves multiplying the emission factor for each pesticide product by the use of that product. We considered this option because the agricultural use figures determined by the ARB methodology appeared to be low compared to successive years (which were all based on PUR data) and the commercial structural use figures seemed to be too high.

Overall, the PUR option increased the 1990 base inventory by 31%. For agricultural uses, the PUR option increased the base year by 44%; for commercial structural uses, the PUR option decreased the base year by 31%. These results appear to confirm our suspicions about the ARB methodology.

By nonattainment area, the PUR option resulted in the following changes:

<u>Nonattainment area</u>	<u>Ag use</u>	<u>Comm structural use</u>
Sacramento	26% less	64% less
San Joaquin Valley	55% more	56% less
Southeast Desert	10% more	33% less
Ventura	68% more	7% more
South Coast	36% less	24% less

In the agricultural use arena, the San Joaquin Valley and the Ventura areas gain significantly, which facilitates their meeting the reduction goal. However, the Sacramento and South Coast areas show significant reductions which make their meeting the

100345

Memo to Paul Gosselin
Page Two

20% reduction goal more difficult. For commercial structural uses, all areas except Ventura show significant reductions. This makes their meeting the goal more difficult. However, in all cases except the San Joaquin Valley, all these areas are already well below the 20% proportional reduction goal for commercial structural uses.

Finally, the workshop package contains charts comparing the estimated pesticide VOC emissions for each year with the 20% straight line reduction that should be achieved, based on the 1990 ARB methodology. Attached to this memo are revisions of those charts using the PUR option for the 1990 base year, for comparison and possible substitution.

cc: John Sanders
Judy Pino
Jim Perrine

100346

01-7-0
Brent Newell

Memorandum

James D. Boyd, Executive Officer
Air Resources Board
2020 L Street
Sacramento, California 95814

Date : May 9, 1995
Place :

from : Department of Pesticide Regulation - 1020 N Street, Room 100
Sacramento, California 95814-5624

subject : 1994 State Implementation Plan

In the interest of expediting approval of California's 1994 State Implementation Plan (SIP) by the U.S. Environmental Protection Agency (U.S. EPA), I am writing to clarify the pesticide element of the SIP, pursuant to U.S. EPA's April 21, 1995, letter to me signed by David P. Howekamp.

The clarification is as follows: the Department of Pesticide Regulation commits to adopt and submit to U.S. EPA by June 15, 1997, any regulations necessary to reduce volatile organic compound emissions from agricultural and commercial structural pesticides by specific percentages of the 1990 base year emissions, by specific years, and in specific nonattainment areas (described in 40 CFR 81.305), as listed in the following table:

Reductions from 1990 Baseline

Ozone Nonattainment Area	1996	1999	2002	2005
Sacramento Metro	8%	12%	16%	20%
San Joaquin Valley	8%	12%	16%	20%
South Coast	8%	12%	16%	20%
Southeast Desert	8%	12%	16%	20%
Ventura	8%	12%	16%	20%

Because the Air Resources Board is responsible for submitting the SIP on behalf of the State, I am requesting that you formally submit this clarification of the SIP pesticide element to the U.S. EPA.

000017

