Schlag.

# Office of Environmental Health Hazard Assessment

Joan E. Denton, Ph.D., Director
Headquarters • 1001 I Street • Sacramento, California 95814
Mailing Address: P.O. Box 4010 • Sacramento, California 95812-4010
Oakland Office • Mailing Address: 1515 Clay Street, 16th Floor • Oakland, California 94612

Winston H. Hickox
*Agency Secretary*

Gray Davis
*Governor*

## MEMORANDUM

**TO:** Charles M. Andrews, Chief
Worker Health and Safety Branch
Department of Pesticide Regulation
P.O. Box 4015
Sacramento, California 95812-4015

**FROM:** Anna M. Fan, Ph.D., Chief
Pesticide and Environmental Toxicology Section

**DATE:** June 13, 2003

**SUBJECT:** MITIGATION MEASURES FOR SEASONAL EXPOSURES OF AGRICULTURAL WORKERS TO METHYL BROMIDE DURING SOIL FUMIGATIONS

---

The Office of Environmental Health Hazard Assessment (OEHHA) received your electronic mail correspondence sent on May 28, 2003, requesting comments on the Department of Pesticide Regulation's (DPR) proposal of regulatory mitigation measures for seasonal exposures of agricultural workers to methyl bromide during soil fumigations. Your correspondence included a memorandum from Drs.Thomas Thonginthusak and Joseph P. Frank, dated May 22, 2003, that described and explained the proposed measures for this mitigation, which are intended to enforce DPR's proposed target air concentration of 16 ppb as an occupational exposure limit for adult workers exposed subchronically to methyl bromide during soil fumigations.

As OEHHA previously stated in its memorandum of May 28, 2003, which was a response to DPR's proposed township cap management program, OEHHA hereby reiterates its comment that regardless of the management reduction option, the basis for the target air concentrations proposed by DPR are higher than those of 1 ppb for the general public (including children), and 2 ppb for adult workers as recommended by OEHHA. OEHHA's position was previously stated in the memorandum from Dr. Anna Fan to Chuck Andrews dated March 11, 2003, and at the March 12, 2003 and April 9, 2003 meetings of the Worker Safety Regulation Work Group. Accordingly, OEHHA recommends that DPR reexamine the basis for its proposed target concentrations for the methyl bromide field fumigation regulations.

Regarding the proposed mitigation measures for seasonal exposures of agricultural workers to methyl bromide during soil fumigations, OEHHA has several additional comments.

1. Page 3 of the memorandum from Drs. Thonginthusak and Frank dated May 22, 2003, contained a discussion of two options of mitigation measures that was confusing in how they were presented. It would be clearer if "Option 1" is called "the mitigation measure" (instead of an option) and "Option 2" is called an "exception to 'the mitigation measure,' only if the stated requirements can be met". This was discussed with Dr. Frank, who also recognized that a clarification of the "Options" was needed.

2. Tables 1 and 2 listed amounts of time workers are permitted to work in various tasks without wearing a respirator that will prevent exposures exceeding the DPR target air concentration of 16 ppb. Since this is an occupational exposure, an additional factor that should be considered is the increased respiration rate of the workers due to the workload they must perform (this additional factor was not mentioned in the Tables).

3. If the OEHHA proposed reference exposure level for adults of 2 ppb were used as the target air concentration by DPR, the amounts of time workers are allowed to work with and without a respirator would need to be significantly reduced from the amounts of time that are now listed. It is not clear if the proposed mitigation methods would adequately protect the workers from overexposure to methyl bromide and also allow them to work an acceptable amount of time.

4. If the OEHHA proposed reference exposure level for adults of 2 ppb were used by DPR as the target air concentration, it is not clear if the respirator cartridge that has been proposed for use would adequately protect the workers from overexposure since it may not have been certified for this level of protection.

Thank you for the opportunity to discuss the proposed mitigation measures for seasonal exposures of agricultural workers to methyl bromide during soil fumigations. If you have further questions, please call me at (510) 622-3165 or Robert Schlag at (916) 323-2624.

Attachment

cc: See next page

Val F. Siebal
Chief Deputy Director
Office of Environmental Health Hazard Assessment

George V. Alexeeff, Ph.D., D.A.B.T.
Deputy Director for Scientific Affairs
Office of Environmental Health Hazard Assessment

Robert Schlag, M.Sc., Chief
Pesticide Epidemiology Unit
Pesticide and Environmental Toxicology Section
Office of Environmental Health Hazard Assessment

Michael J. DiBartolomeis, Ph.D., D.A.B.T.
Chief, Pesticide and Food Toxicology Unit
Pesticide and Environmental Toxicology Section
Office of Environmental Health Hazard Assessment

William Ngai, M.D., M.P.H.
Pesticide Epidemiology Unit
Pesticide and Environmental Toxicology Section
Office of Environmental Health Hazard Assessment