



Department of Pesticide Regulation



Mary-Ann Warmerdam
Director

MEMORANDUM

Arnold Schwarzenegger
Governor

TO: George Farnsworth
Environmental Program Manager I
Worker Health and Safety Branch

HSM-09012

FROM: Harvard R. Fong, CIH
Senior Industrial Hygienist
(916) 445-4211
(original signed by H. Fong)

DATE: November 4, 2009

SUBJECT: OBSERVATIONS AND RECOMMENDATIONS FROM AN EVALUATION OF
A PROPOSED NEGATIVE PRESSURE FUMIGATION FACILITY IN THE
LONG BEACH AREA, LOS ANGELES COUNTY

On May 13, 2009 I made a workplace evaluation of two sites developed by Clark Pest Control (CPC) for fumigation of intermodal vans. Staff from CPC, Los Angeles County Agricultural Commissioner's (CAC) Office and Department of Pesticide Regulation (DPR) Enforcement/Southern Regional Office were also present. I had previously visited the sites in December of 2008, before CPC had begun the structural and ventilation retrofitting required to convert these warehousing facilities into fumigation enclosures. In the lead up to this, CPC had been in extensive contact with both the Environmental Monitoring Branch (primarily Randy Segawa and Pamela Wofford) and Worker Health and Safety, Industrial Hygiene staff. The staffs of these two Branches had considerable input into the designs of the fumigation structures and provided necessary guidance to ensure that the final design, and final structure, would provide a low-hazard worksite for not only the fumigation workers but also for businesses adjoining the structures. CPC had contracted with an engineering firm to design and install ventilation systems in the two sites (one located on 15th Street, the other about 1 kilometer away, on 14th Street, in Long Beach) that would maintain the structures in a negative-pressure condition during fumigation and also provide aeration through a stack of sufficient height to mitigate any offsite exposures.

Both structures were in operation at the time of this workplace evaluation, with tarped intermodal vans loaded with lumber under treatment with methyl bromide. In both cases, small "USDA sheds" were adjacent to the fumigation structures. These sheds housed Fumiscope[®] monitoring equipment (ounces per 1,000 cubic feet), sampling lines, Pure-Aire[®] exterior zone monitoring equipment (0 to 10 parts per million), Magnehelic[®] differential pressure gauge (reading 0.11 per square inch gauge [psig]) and the USDA staff. The sampling lines were self sealing and all air samples drawn through the Fumiscope[®] were returned to the fumigated structure.

Both structures were equipped with a high-volume exhaust fan, an exhaust stack that met permit condition requirements and louvered air intakes that seal shut when the exhaust fan is off. The



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buildings had been caulked and sealed tight to maintain at least 0.11 psig, ensuring that fugitive emissions from the fumigated intermodals would flow up the exhaust stack.

The Los Angeles CAC is satisfied that these structures are providing the control of methyl bromide emissions necessary for the location of these facilities. The engineering control method developed for these buildings should be adaptable to other sites where absolute control of offsite exposure is critical.

cc: Susan Edmiston, Environmental Program Manager II, Worker Health and Safety Branch
Richard Sokulsky, Los Angeles County Agricultural Commissioner's Office
Peggy Byerly, Environmental Scientist, Enforcement, Southern Regional Office
Jahan Motakef, Senior Environmental Scientists, Enforcement, Southern Regional Office