



Mary-Ann Warmerdam
Director

Arnold Schwarzenegger
Governor

Minutes Parlier Local Advisory Group Meeting August 18, 2005

Local Advisory Group (LAG) members present:

Daniela Simunovic (alt), Jennifer Ambacher (alt), Jose Renteria, Juana Espino (alt), Martin Macareno (LUPE translator), Matthew Towers, Harold McClarty, Teresa deAnda, Raul Gaona, Richard Milton, Vernon Peterson, and Jerry Prieto. (**Absent:** Ben Benavidez, Weldon Byram, Dr. Rogelia Fernandez, Chris Haga, Israel Lara, Rey Leon, Richard Velasco, and Lou Martinez).

Technical Advisory Group (TAG) members present:

Kent Pinkerton, Julian Recendez, Kevin Smith, Pam Wofford, Jay Schreider, Lynn Baker, Lori Berger, Pat Matteson, Eric Bissinger, Tim Tyner, Michael Dong, Helene Margolis, John Faust, Bob Schlag, and Dmitri Smith.

Facilitator: Lydia Martinez

Department of Pesticide Regulation (DPR) staff: Veda Federighi, Randy Segawa, Braulia Sapien, and Roger Sava.

Audience sign-in sheet: Sara Miller, Bill Thomas, Socorro Gaeta, Toni Gonzalez, Karla Kay Fullerton, Manuel Cunha, Barry Bedwell, Vidal Reyna, Diane Field, Erin Field, Bob Krieger, and Alma Martinez

1. Introductions and review: Lydia Martinez opened the meeting with introductions from the LAG, TAG, and audience. Veda Federighi, Environmental Justice Coordinator and Assistant Director of the Department of Pesticide Regulation, reviewed the agenda for the meeting. Describing the agenda as ambitious, she asked everyone to stay focused and audience members to limit their comments to three minutes so the entire agenda might be covered by the meeting's conclusion at 9 p.m. She advised that written comments of any length could be submitted to her, and she would forward them to the LAG and TAG and to DPR's senior management. She reminded the group that DPR would have to make many decisions in the next month, so everyone's input was needed. Martin Macareno apologized that he and Jose Renteria had to leave after the first hour of the meeting. Veda suggested that, in the interest of time, questions and comments be saved for the end of the presentation on the protocol. Lydia reviewed the group norms established at the first meeting. Veda asked that members e-mail her by early next week if they had any corrections or comments on the July 21 minutes that they had received and were also available in their packets.

2. Draft project protocol: Randy Segawa, Project Leader and Senior Environmental Research Scientist at DPR, gave out the draft *Pilot Project Protocol for Pesticide Air Monitoring in Parlier*. He stressed that elements of the protocol were still flexible and negotiable. After reviewing the table of contents (pp. 1 & 2) covering the eight primary sections of the report, he



focused on section 3 describing the sample collection design and methods and section 8 showing the estimated timetable for completing the project. He summarized the TAG 's comments about the protocol but invited the TAG members present to add comments, if they chose. Randy reviewed several tables in the protocol, showing the characteristics of pesticides and other air pollutants included in the monitoring and among the top 100 such products used within five miles of Parlier during 2003. These pesticides and breakdown products include those currently proposed to be monitored by DPR at Chavez Elementary School, Martinez Elementary School, and Benavidez Elementary School (or Parlier Junior High School) three days per week; volatile organic compounds (VOCs) and metals/elements to be monitored one day every six days by the Air Resources Board (ARB) at Benavidez Elementary School (or Parlier Junior High School); and hydrocarbons and aldehydes to be monitored at the Kearney Agricultural Center once every three days during July to September by the San Joaquin Valley Air Pollution Control District (SJVAPCD).

In response to a question posed by an audience member about health screening levels and detection methods, Randy referred to pages 32-33 of the protocol and explained detection limits and quantification limits. Teresa deAnda asked for further explanation to which Veda responded, saying that quantification limits were the smallest amount of a particular pesticide that could be detected in the air. (The quantification limit would vary with the pesticide.) This amount was always lower than the screening level, that is, DPR would always be able to detect whether a pesticide was at, below or above the screening level. If there were a problematic level, it would be found. Randy noted that the methods to detect the pesticides were still being developed by the lab and there were a few with which the lab was having difficulty and therefore those pesticides might have to be dropped from the study. Veda explained that for the Lompoc project, DPR developed a method for monitoring multiple pesticides in a single air sample, and this was the first time such a method was used anywhere.

Randy then reviewed the rating system for the top 25 pesticides used within five miles of Parlier in 2003 (p. 27) and indicated those that would and would not be monitored.

The discussion then turned to the monitoring locations. DPR, ARB, and the local air district will monitor at four sites in Parlier: DPR proposes to monitor at Martinez Elementary School, Benavidez Elementary School and at Chavez Elementary School; ARB proposes to use Benavidez; and the local air district will continue to use the Kearney site. Using maps of Parlier included in the protocol, Randy showed that the greatest population density was on the west side of Parlier where Martinez School is located; Martinez may have the highest concentration of pesticides because of its location on the edge of town, higher use of certain pesticides, and weather patterns, including wind direction. Chavez is on the east side, also on the edge of town, and may show higher concentrations of pesticides used east of Parlier. Benavidez is centrally located and may be the single most representative site. A LAG member posed a number of questions about the sites, and an audience member suggested that presentations about the study be made to students in the schools. A team from ARB was to visit Parlier the following week to select a site for the trailer from which it will do its sampling.

Randy discussed the frequency of monitoring and the number of samples to be collected, referring to the sampling schedule on page 30 of the protocol. He pointed out that DPR would

have two samplers at each of the three sites, one for the bulk of the chemicals and the second for methyl isothiocyanate (MITC). Each sampling cartridge will collect air continuously for a 24-hour period; then a staff member would change it out for another cartridge, which would be left to collect for a second 24-hour sampling period. That sampling cartridge would be changed, and the third one left to collect for 24 hours. These 24-hour samples would be taken three days a week. Teresa deAnda asked if sampling would occur on consecutive days. Randy's positive response generated concern that decisions regarding frequency had already been made. Veda clarified that although senior management at DPR would eventually make such decisions, the protocol remained a draft document and no final decisions had as yet been made on this or other matters. Randy reiterated that he welcomed comments over the next few weeks. He explained, however, that the rationale for consecutive day sampling was personnel costs: three consecutive days of sampling translated into four days work for his crew, whereas sampling every other day meant six days of work, which could not be accommodated within the project budget without reducing the number of samples. He observed that consecutive day sampling was also standard for DPR. An ARB representative added that his agency would be sampling VOCs and metals once every three days during the month of peak usage of two pesticides (1,3-D and sulfur), a point not mentioned in the protocol because it was not known when the protocol was drafted.

The group then reviewed the schedule for the project on page 18 of the protocol. Although DPR would be ready to begin sampling this coming October (2005), it will delay the project until January 2006 to maximize the number of samples taken. Extending it over two fiscal years will allow DPR to cover the cost of collecting three samples at three locations three days/week. (The state's fiscal year begins July 1 in one calendar year and extends to June 30 of the next.) Randy noted that the TAG had no problem with this time schedule. Martin Macareno suggested some sort of presentation to educate the community about the study. Veda agreed and asked help from him and others in selecting a time and place. Martin and Jose then had to leave the meeting, as announced earlier.

Randy introduced an additional decision point: if monitoring samples were reduced to six per week instead of nine, chloropicrin (discussed at a previous LAG meeting) could be added to the study. He reported that the TAG didn't like the idea, but that LAG could think about the choice and discuss it at the next meeting.

Veda proposed that LAG members visit the ARB trailer at their January meeting to see that part of the project in operation. LAG members agreed this was something they would like to do.

3. Health Screening Levels: Dr. Jay Schreider, Primary State Toxicologist at DPR, described some of the methods DPR will use to evaluate the health significance of the pesticide levels that are measured in the Parlier project. Because pesticides are viewed both as individual chemicals and as mixtures, he will be using an approach similar to that used in a multi-pesticide air-monitoring project conducted in Lompoc a few years before; the methods will be refined, updated, and expanded for this project. He explained that there are few State or federal health standards for pesticide levels in air, especially ambient air. As a result, DPR scientists developed screening levels; these are not legal regulatory levels but rather guideposts in determining possible health effects from exposure to a chemical. The screening levels are developed from toxicological data from animal toxicity studies. Elements of uncertainty, such as applying animal

data to people, variability among human beings, and the potentially increased sensitivity of children, will be addressed. Different exposure times have different screening levels: acute or short-term exposure, subchronic or intermediate term exposure, and chronic or long-term exposure. Acute exposure is generally a single exposure or exposure over one day; subchronic exposures may be up to about three months; and chronic exposure is generally considered a year or more up to a lifetime exposure. Mixtures of pesticides require a different approach; one that may be employed in Parlier is called the hazard index approach, which was used in the Lompoc project (see page 14 of the protocol). Jay explained that pesticides may exhibit toxic effects independently of each other, or they may interact in an additive, synergistic, or antagonistic way. Additive interaction occurs when one chemical adds to the toxicity of another; synergistic interaction occurs when one chemical multiplies the toxicity of another chemical; and antagonistic interaction occurs when one chemical diminishes the toxicity of another chemical. Jay gave examples of each interaction before concluding his presentation that had been significantly shortened in the interest of time.

The presentation elicited a number of questions and concerns about an array of issues: environmental justice versus environmental injustice; uses of the data when the project is completed; the connection with Proposition 65; and the positives versus the negatives of pesticide usage. As part of her response, Veda pointed out that residents of Lompoc had had similar or related concerns, and that despite the difficulty of the highly technical, scientific work involved, DPR was able to explain the data to the community and allay its fears.

4. Overview of Related Projects: Kent Pinkerton from the UC Davis Center for Health and the Environment described a related study to examine in healthy rats the potential health effects of exposure to ambient airborne particles on the respiratory systems of humans. An audience member wanted information about such collaborative projects to be posted on the DPR website. Veda stated that these related studies were independent of the DPR project, and funded independently (that is, not by DPR). Tim Tyner of UC San Francisco's Valley Air Pollution and Health Effects Research Institute (VAPHER) in Fresno has proposed a study on the health impacts of cumulative pesticide exposures on children in Parlier. VAPHER would collect health data regarding children in Parlier from the United Health Center clinic, the schools, and asthma data from the Health Education and Access for Life program. Tim then responded to questions. Helene Margolis with the Department of Health Services Environmental Health Tracking Unit explained her unit's project linking pesticide use reports from Parlier to the entire San Joaquin Valley and the L.A. Basin and leading to public health policy.

5. Future meeting schedule: The LAG will meet again on Thursday, September 15.

6. Other Issues: The following issues were raised after the meeting formally ended: more questions about health screening levels, the one day per week sampling by ARB, and whether additional outside scientific review was needed. It was explained that TAG provides scientific peer review external to DPR, but staff will explore the need for additional review, if the budget can accommodate it.

The next meeting will be at 7 p.m., September 15, in the same place (Nectarine Room, Kearney Agricultural Center, Parlier).