

# PESTICIDE INCIDENT REPORTING AND TRACKING (PIRT)

## REVIEW PANEL

### MAY 21, 2009 MINUTES

DEPARTMENT OF HEALTH  
TUMWATER, WASHINGTON  
(APPROVED BY PIRT 6/18/2009)

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#### PANEL MEMBERS IN ATTENDANCE:

Cynthia Lopez (CL), Chair	Department of Health	(360) 236-3340
Pam Edwards (PE)	Labor and Industries	(360) 902-6457
Allan Felsot (AF) (phone)	Washington State University	(509) 372-7365
Rich Fenske (RF)	University of Washington	(206) 543-0916
Karen Ripley (KR) (phone)	Department of Natural Resources	(360) 902-1691
William Robertson (WR)	Washington Poison Center	(206) 517-2356
Debby Sargeant (DS)	Department of Ecology	(360) 407-6139
Ann Wick (AW)	Department of Agriculture	(360) 902-2051
Liesl Zappler (LZ)	Public Member	(425) 739.8100 EXT. 481

#### PANEL MEMBERS ABSENT :

Bridget Moran (BM)	Department of Fish and Wildlife	(360) 902-2589
Vacant	Toxicologist	

#### COORDINATOR

Fran McBride (FM), Coordinator	Department of Health	(360) 236-3367
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#### IN ATTENDANCE:

Wayne Clifford (WC)	Department of Health	
Carol Dansereau (CD)	Farm Worker Pesticide Project	
Nadine Lehrer (NL)	Washington State University Tree Fruit Research and Extension Center	
Pam Madson (PM)	House of Representatives Environmental Health Committee	
Barbara Morrissey (BFM)	Department of Health	
Doug Radach (DR)	Washington Education Association	
Bryan Stuart (BS)	Dow AgroSciences	
Kammeron Todd (KT)	Washington Friends of Farms and Forests	
Jill Van Lubt (JV)	Washington Education Association	

The meeting started at 9:30 a.m. CL referred to a summary of meeting rules on the back of the agenda for members of the public who would like to participate during the public comment period. She announced that the meeting is being recorded, and that only the PIRT-approved meeting minutes are the official meeting record.

The panel introduced themselves. LZ, CL, DS, WR, AW and RF were present, and KR and AF were on the phone. The panel reviewed the proposed agenda. LZ asked to add a discussion of the future of PIRT to the agenda, as she and KR must leave early. (PE entered the meeting at this point, and CD joined by phone.) RF moved to amend the agenda to discuss the future of PIRT early on and shift the discussion of the April meeting minutes to later in the meeting. WR seconded, and all were in favor.

LZ read excerpts from a May 19 letter from the Governor's Office, which stated that DOH is required to continue supporting PIRT, with a fifty percent funding reduction for PIRT and the pesticide program. The letter held that it is inappropriate to prioritize the PIRT activity over other activities. AW said that the legislative mandate for PIRT still exists, but it is up to DOH to decide how to support it. CL received direction from DOH management that PIRT will continue with no funding specified in the DOH budget. PIRT had not been allocated funding in previous budgets. CL read the PIRT RCW and noted that a quorum of six of the eleven PIRT members is required for decision making. WC entered the meeting here. He was not able to add anything, but stated that there will probably be more information at the next meeting. LZ expressed concern about the panel continuing, and hopes that all the agencies involved are committed to participating.

CL asked WR if WAPC would be able to send a representative to PIRT; he stated that he believed so. CL said that DOH prefers not to have Yakima meetings because of the resources involved. She proposed that the November Yakima meeting be held on the west side. The mandate says that PIRT is to meet monthly, but the panel has flexibility in terms of meeting time and location. DS, PE, AW, RF, and AF said their agencies would continue to have representatives to PIRT meetings. KR said she will probably be instructed not to participate, as DNR has had heavy cuts, and regulating pesticide exposure and use is a small part of the agency's core business. She will explore ways to create an inactive status for DNR. CL noted that without DNR and Fish and Wildlife present, and without a toxicologist, that will leave eight active members. If three do not attend a meeting, it will affect the quorum. She will ask Mark Calkins about the legal requirements for a quorum under these circumstances. KR would like to set up a communications channel with PIRT to be informed of forestry pesticide issues.

**ACTION:** CL will obtain counsel from Mark Calkins on requirements for a quorum with fewer members on the panel.

### **Assessing Impacts to Growers, Farm Labor, and Environmental Groups from Phase Out of Azinphos Methyl**

NL, a researcher from the WSU Tree Fruit Research Extension Center's Pest Management Transition Project (PMTP), presented on this topic. This presentation is posted at <http://www.doh.wa.gov/ehp/Pirt/090521mtg.htm>. The PMTP was created specifically in response to EPA's phase out of azinphos methyl (AZM) in 2012 and to other regulatory actions on organophosphate pesticides. AZM is a broad spectrum insecticide that will generally eliminate codling moth and other pests. Newer insecticides are very good, but are more complicated to use. They must be used at specific moments in the insect life cycle, must be targeted, are more expensive, and need to be rotated to avoid resistance. The PMTP was created to reduce pesticide risk to farm labor and the environment, look at ways to mitigate pesticide risk in general, sustain grower profitability through acceptable crop protection, and change practices and perceptions of apple integrated pest management practices. For grower and consultant education, small groups called implementation units were formed to discuss new insecticide technology in ways that will

facilitate greater adoption of these new practices. From 2008 to 2009, the number of people participating in implementation units decreased, but the amount of acreage represented increased.

NL discussed results of assessments and surveys of various groups affected by the phase out of AZM. Evaluations of implementation units indicated that the PMTP influences pest management decisions a lot or a moderate amount and that most participants were likely to participate again in 2009. Surveys of pest management consultants and growers indicated that a majority was concerned about codling moth and 92 percent recommended AZM as a relied upon and trusted tool. Alternative pesticides were also highly recommended. PMTP is hoping to see the recommendation rate of AZM decrease and confidence in alternative pest management practices increase as the phase out date approaches. Seventy-nine percent of pesticide applicators knew about the AZM phase out. Some had worked with new pest control products, indicating that there is some seepage of knowledge of these new tools into the field. Farm worker outreach identified interest in availability of health and safety reference materials of pesticides being used at their workplace. There are also opportunities for coordination with outreach and advocacy groups, local radio, and newspapers within farm worker communities to disseminate information about pesticides. NL showed examples of posters listing product toxicity and re-entry intervals that are being developed as reference materials.

PMTP has thus far achieved outcomes of high recommendation of integrated pest management practices and new insecticides among consultants, high satisfaction with implementation units, a strong knowledge base among applicators and supervisors, and outreach and collaborations with farm worker and environmental groups. The legislative funding for PMTP was not renewed, so they are seeking alternative sources of funding.

Information about the PMTP can be found on <http://pmtip.wsu.edu/>.

### ***Preliminary Results from Pesticide Air Monitoring Research – University of Washington***

RF presented on this topic (see <http://www.doh.wa.gov/ehp/Pirt/090521op-ppt.pdf>). On April 1, UW sent a draft final report on the 2008 air monitoring data to DOH. This was sent with DOH comments to the technical review panel. UW will integrate the panel's suggestions in the final draft and make it available to the public. The purpose of the study was to measure air concentrations of organophosphorus pesticides to determine whether there is a risk to the non-occupational population in regions where these compounds are used heavily.

Sampling was done in two phases. Phase one sampling captured chlorpyrifos used in orchards in the north central region by Wenatchee and in the Yakima Valley. Phase two sampling took place only in the Yakima Valley and captured primarily AZM, with some phosmet and malathion, from orchard air blast applications.

Samples were collected at three types of sites. Receptor site samples were from locations where a residence or human activity might be located at less than a hundred meters from an orchard. Twenty-four hour air samples were collected over approximately thirty days at three sites in each region. There was one ambient site at each region, located at least five hundred meters from any orchard, which served as a reference concentration for the pesticide level generally present in the area but not associated with a specific application. Perimeter site monitoring looked at specific

applications. Samplers were located around an orchard block, collecting air samples before, during, and after an airblast application.

When samples were analyzed, researchers found a substantial amount of oxygen analogs, or oxons, of the pesticides. In human metabolism of chlorpyrifos, chlorpyrifos-oxon is the metabolite of chlorpyrifos and is viewed as being more toxic than the parent compound. It was important to understand why these results were seen, given that California air monitoring studies also reported the presence of oxons, while the 2006 Farm Worker Pesticide Project studies did not. UW conducted two follow up studies, one in the laboratory and one in the Yakima Valley. These samples have been analyzed, and researchers are working on data analysis. What is known is that some of the oxon is an artifact of sampling. It is unclear whether there is any oxon in the air that people are breathing in these environments.

RF presented graphs of these results compared to California Department of Pesticide Registration (DPR) and EPA acute screening levels. To summarize, none of the 24 hour samples exceeded the DPR or EPA screening levels. One AZM eight hour perimeter sample exceeded EPA's acute screening level, but not that of DPR. However, if you averaged it with the adjacent samples that span 24 hours, the average would be less than the EPA screening level. Exposures to bystanders from these applications do not seem to pose a risk, based on these screening levels. RF thinks that the question of whether oxon is present needs to be further explored.

### **Public Comment**

BS asked whether the parent oxon ratio issue was the same for all types of samples. RF said that perimeter sites look different from receptor sites, but receptor sites also look different from each other. BS asked if the values on the bar charts over time represented the same location in space. RF explained that they represent the highest values of the eight perimeter samples. They are probably not from the same location, but they could be. The variability is a function of wind to a great degree. Data from each sample will be available in the report. DR asked whether they monitored wind speed and direction at sampling sites. RF replied that at sites where an application occurred, their own meteorological stations were onsite. For the receptor and ambient sites, they relied on WSU weather station data. NL asked about whether there was anything in the report on chronic screening levels. RF said that subchronic levels were included, which is why his team extended sampling over a thirty day period based on guidance from EPA and DPR. Those levels are so much higher. The UW results were not close to them. This information is included in the report. CD asked him to comment on the basis of their chlorpyrifos reference dose, whether it reflected the non-cholinesterase inhibition routes of neurodevelopmental impacts based on inhalation, and which safety factors were used. RF said that the exposure scenario used by California was a 24 hour exposure of an infant breathing air with a specific pesticide concentration. He believes that they used cholinesterase inhibition as the endpoint, which is the recognized regulatory parameter used to set reference doses. BFM added that California did not use the additional factor of ten for children, but instead used a respiratory rate for children less than one year to incorporate the safety factor for children, as children have higher respiratory rates than adults. CD requested that the report include this kind of information and data on various reference doses. RF stated that one of the challenges for this study is that the route of exposure is inhalation, and much of the regulatory information is from other routes of exposure. It is not clear whether it is appropriate to use oral dosing data when inhalation exposure is involved; this will be discussed in the report. In this case, California thought this was the most appropriate comparison. BFM said that the chlorpyrifos numbers are based on a ninety day rat inhalation study. RF or BFM will send

CD the California document used as a reference. CD commented that the report should include a thorough discussion of other studies. RF can make reference to studies on neurodevelopment studies, but is not able to conduct an exhaustive literature search and analysis. CD thinks it is misleading to state that exposure does not seem to put the population at risk without referencing the neurobehavioral data. RF responded that we can refer to its existence, but its meaning in terms of specific exposures and doses is debatable. AF commented that DOH is responsible for interpreting the data. He cautioned against interpreting published epidemiological studies as being identical or of the same quality as studies published to develop a regulatory endpoint. CL said that DOH will review both components of the air monitoring project. The DOH report will not be extensive, but will likely take the form of an executive summary. DOH does not have funding to conduct an extensive review. Data will be available to third parties who may analyze the data by a different method. RF said the deadline for the final report is June 30. KT asked whether the executive summary will be from PIRT or DOH. CL responded that it would be from DOH. BS said that DPR is embarking on another large air monitoring study in three locations in the San Joaquin Valley. The information is posted on the DPR website.

WR moved to break, AW seconded, and all were in favor.

The meeting adjourned at 11:15 and resumed at 11:23.

### **Review of April Meeting Minutes**

CL moved to review the April minutes. PE seconded, and all were in favor. CL asked about the members of the public who gave comments after Helen Murphy's presentation. It was determined that they were both growers. CL felt this was important because of the confusion of some members of the public on risk assessment. PE was not present at the April meeting, but asked that in the section on the WPS rule revision "hazardous material regulations" be changed to "hazardous communication standard." She noted that workers still need to wear respirators if required by label with enclosed cabs. (FM will note that PE made the corrections at the May meeting.) CL asked about the last sentence of the WSU air monitoring section. FM will add "recommending these technologies" to make the sentence clearer.

DS moved to approve the minutes as amended, with the caveat that FM will ask Vince Hebert and Helen Murphy to review their sections. AW seconded, and all were in favor.

### **Discussion of April PIRT Meeting in Granger**

The panel typically reflects on eastside PIRT meetings at the subsequent meeting. LZ suggested prefacing meetings with rules of conduct to deter disrespectful comments. CL called attention to the meeting rules on the back of the agenda. At a previous meeting, a member of the public referred to a worker's comments as a diatribe and asked that it be stricken from the meeting record. In April, a member of the public made a disrespectful remark after a member of the public had commented. DS suggested stating the purpose of the meeting and giving ground rules upfront. CL wondered about the chair's role when guidelines are not followed. AF remarked that the chair's role is to give guidelines and intercede if comments get too extreme. CL's concern is the difficulty in getting the public to attend PIRT meetings, particularly among disadvantaged communities. If they are then subject to ridicule or insult, it will be more difficult. AF felt we were having the meeting there to have the community show up, and was disappointed about the attendance. LZ said that there were quite a few people present for Helen Murphy's presentation. People need to feel

free to speak; the chair prefacing the meeting would help that. DS suggested having printed ground rules in large print. PE commented that people who attend the Yakima meeting tend to be very passionate. LZ feels it is important to for PIRT to have an east side meeting. CL said that DOH does not have the budget and will not have the staff to support eastside meetings.

NL suggested that laying out ground rules in the beginning will give you license to remind people to keep comments courteous, and suggested videoconferencing to reduce costs. CL said that there won't be any money for interpreters. LZ expressed concern that with no DNR and DFW presence on the panel, representation of environmental pesticide issues falls upon Ecology.

LZ left the meeting at 11:46 am.

CL raised the issue of relative risk assessment and the notion held by some people that pesticide exposure is not as risky as car accidents. She spoke of the difference between voluntary and involuntary risk, where women and children are inadvertently exposed by pesticides being brought into the home from a family member's workplace. CL felt that a public comment implied a perception of why spend time and money on these types of risks when no one dies from pesticides. RF said that that comment comes up quite a bit when there is a chemical health hazard. AW said that the legislature has directed PIRT to look at pesticide-related incidents, and that no one else is doing this. CL thinks it is a very common misperception of the public that certain risks may be more important than others, and that pesticides are a small risk. Pesticides do travel through the air and are ubiquitous, and do have risk. CL suggested that it may be helpful to develop a small pamphlet or article explaining the concept. DS said that pesticides are a long term risk whereas automobile accidents are an immediate risk. Pesticides might have a long term health effect, and there are different endpoints – mortality, cholinesterase inhibition, or other health effects. AF said if we didn't look at the risk of all technology, we would never know how to manage that risk. Risk can be managed at any level. We would not have improved pesticide management practices and better pesticides if we not taken pesticide risk seriously twenty years ago. That particular public comment was not meant to be informative. AW said that there are risks with the use of pesticides, people can get seriously ill or die, but PIRT is not saying that all pesticide uses should be banned. PIRT is looking at it based on the science. CL said that the problem is that other members of the public might think that this is educational rather than confrontational.

**ACTION:** CL would like to work with RF or AF to identify risk assessment materials for availability at PIRT meetings.

### **Legislative Update**

CL informed the panel of Substitute Senate Bill 6171 revisions that affect the pesticide program. These give the pesticide program some flexibility in conducting its investigations with half of its current staff, eliminate the pesticide program's ability to adopt rules regarding recurrence of pesticide poisoning, and direct the program to investigate pesticide exposure according to the degree of risk to the individual and the greater population, as well as the level of funding available. There were no changes to the PIRT RCW. DOH agency budget was reduced by \$100 million in the next biennium. The biggest reductions are in vaccine coverage, tobacco prevention. She listed the cuts to Environmental Health.

DS reported reductions to Ecology in watershed planning and some water resources, but nothing that affected Ecology's pesticide program.

KR reported a DNR budget cut of about \$23 million in general funds, over 22 percent of its budget. At the same time, timber sales are down, so parts of DNR that depend on timber revenue are being cut back. This will probably affect the agency's choice to remain an active member in PIRT. DS said that LZ expressed concern about Ecology being the sole natural resource participant on the panel. RF commented that the PIRT RCW has not changed, and DNR is a named participant. He would like to encourage DNR to have a representative contribute by phone in a limited way, at least in decision making.

WR reported that WAPC is trying to determine whether they will be able to continue 24 hour phone coverage with a 37 percent budget reduction. They are looking into the possibility of attaching a credit card charge when someone calls about a problem with an animal. Dr. Hurley is doing more intense quality assurance check backs with ER physicians to ensure they receive correct advice from WAPC as it operates with fewer resources.

PE reported that L&I Division of Occupational Safety and Health is down twelve employees. The agency has severely limited all travel.

AW told the panel that right now, fees are sufficient to maintain the WSDA pesticide program's services at the current level. Travel is severely curtailed.

RF said that it is likely that someone else besides himself will be the UW PIRT representative, as he will be the acting chair of his department next year.

AF said that cuts impacted the WSU extension program the worst. The extension is going back into the college of agriculture. The research part of the college of agriculture was cut heavily. Staff needs to come up with money for their technical support staff. There will be a fourteen percent tuition hike. The cuts won't effect WSU representation on PIRT.

AW told the panel of upcoming safety trainings for pesticide handlers and trainers in eastern Washington, many in Spanish. More information can be found at:  
<http://agr.wa.gov/PestFert/LicensingEd/FarmworkerEducation.aspx>.

CL reported that the pesticide program has moved to expedited case investigations for non-occupational cases from WAPC, but will continue to do full investigations on agricultural and occupational cases. Electronic referrals from WAPC will continue until the system malfunctions and there are insufficient resources to fix it. The pesticide program has transitioned to a scannable data entry system and will be testing it soon.

### **Draft June Agenda**

KR will give a brief update on the land use change study and provide referrals to other resources. The agenda will include discussion on how PIRT will be affected by the 2009 budget. FM will ask LZ about presenting on Washington penalties for pesticide violations compared to other states.

**ACTION:** FM will ask LZ about the presentation.

The 2008 PIRT report has been reviewed by the DOH Assistant Secretary and has moved on to the Secretary's office.

Matt Shultz, the principal investigator on the synergistic effects of combinations of pesticides, was asked to speak at an upcoming meeting, but declined. He will be publishing more on the synergism research.

WR moved to approve the June agenda, DS and RF seconded, and all were in favor.

CL called for public comment. There was none at this time.

DS moved to adjourn, WR seconded, and all were in favor. The meeting adjourned at 12:32.

### **Future PIRT Meetings**

June 18	Labor and Industries, Tukwila
July 16	Department of Health, Tumwater
August	No meeting
September 17	Labor and Industries, Tukwila

See <http://www.doh.wa.gov/ehp/Pirt/pirt-meetings.htm> for agendas directions, and meeting materials.