

AGRICULTURAL CHEMICALS SUBCOMMITTEE MEETING RECORD

TIME AND DATE:

10:30 AM, April 15, 2009

LOCATION:

TCEQ, Park 35, Building F, Room 2210, Austin, Texas

PURPOSE OF MEETING:

The FY09 Third Quarter Meeting of the Agricultural Chemicals Subcommittee of the Texas Groundwater Protection Committee

ATTENDEES:

AGENCIES

Texas Commission on Environmental Quality [TCEQ]
Texas Department of Agriculture [TDA]
Texas AgriLife Research [TAR]
Texas Water Development Board [TWDB]

REPRESENTATIVES

Joseph L. Peters	Chair, Member, TCEQ, Austin
Richard Eyster	Member, TDA, Austin
Bill Harris	Member, TAR, College Station
Janie Hopkins	Member, TWDB, Austin

AGENCY STAFF

Alan Cherepon	TCEQ, Austin
David Villarreal	TDA, Austin

INTERESTED PARTIES

None present

MEETING SUMMARY:

I. Opening Remarks

The Chairman of the Agricultural Chemicals Subcommittee, Dr. Joseph Peters (TCEQ), called the meeting to order. Subcommittee members David Van Dresar (TAGD), Bruce Lesikar

(TAES), and Donna Long (TSSWCB) were not in attendance. Dr. Peters welcomed everyone to the meeting and had the Subcommittee members introduce themselves. The meeting proceeded to the Task Force Reports.

II Task Force Reports

Site Selection Task Force: Janie Hopkins (TWDB), the Task Force Chair, indicated the TWDB is continuing sampling and taking cooperative samples for TCEQ. Alan Cherepon (TCEQ) will be presenting the 2009 sampling work plan later in the agenda.

Education Task Force: Bruce Lesikar (TCE), the Task Force Chair, was absent and no update was provided.

PMP Task Force: Alan Cherepon (TCEQ) commented that TCEQ would be assessing about 15 pesticides in 2009. He added that, since this was not due till the end of December, the task force would meet on this later in the year.

None of the other task forces were active.

III. History and Summary of the Agricultural Chemicals Subcommittee Monitoring Programs

Mr. Cherepon (TCEQ) provided handouts and gave a presentation on Texas Pesticide Monitoring Under FIFRA and the ACS: A Historical Perspective. The talk covered the formation of the Texas Groundwater Protection Committee and Agricultural Chemicals Subcommittee by the Legislative Session in 1989, early monitoring of pesticides in Texas, and how the availability of immunoassay analytical methods together with a cooperative monitoring agreement with the TWDB contributed to a more comprehensive pesticide monitoring program in Texas.

Early pesticide monitoring included:

- TDA and Ciba Geigy monitoring in 1988-1990 and 1994-1995 respectively
- Brazos River Alluvium atrazine monitoring in 1994-1996
- Vulnerability Area monitoring in Hidalgo, Bailey, and Parmer Counties in 1996-1999

The next phase of monitoring involved investigations of five Public Water Supply (PWS) systems in the Central Panhandle having well samples that analyzed positive for atrazine, as identified by the Public Drinking Water Section of TCEQ. Immunoassay analysis was very helpful in these investigations, which also helped in the initiation of the Cooperative monitoring program for atrazine and metolachlor. The cooperative monitoring program was initiated in 2000, with the target analyte being atrazine the first year, and metolachlor being added the following year. These were two of the most often detected and heavily applied pesticides in the state. Over the first five year cycle of monitoring the State's aquifers, TCEQ and TWDB averaged 520 analyses per year. From 2000 through 2008, 6427 analyses have been made by immunoassay through the Cooperative Monitoring program.

The urban pesticides monitoring program began in 2006 in San Antonio for five wells with known atrazine detects. The program expanded to 49 wells and springs sampled in Austin and San Antonio in 2007 where 291 immunoassay analyses were conducted covering five different pesticides. Laboratory analyses were not performed on these samples. In 2008, 109 wells, 22 springs, two entry points were sampled in Austin, San Antonio and Houston. These samples, which included 20 QA/QC samples, underwent 604 immunoassay analyses for five pesticides. A subset of these samples underwent 21 laboratory analyses by three EPA methods for pesticides.

Approximately 35 samples are scheduled to be collected in 2009 in the Greater Austin Metropolitan Area. These samples will undergo both laboratory analyses by four EPA pesticide methods and also analyses by immunoassay for five pesticides.

A summary of the creation and results of the Interagency Pesticide Database (IPD) for pesticide analyses of groundwater samples was also presented. The total number of analyses, the number of detects of various pesticides, and a comparison of early and recent data were included. The presentation culminated with the following summary.

- Early monitoring was performed over a 13-year period from 1987-1999 whereby a total of 352 samples were collected and analyzed.
- Investigation of five PWSs in the Panhandle occurred from 1999-2002.
- This led to the Cooperative Monitoring Program in 2000, under which 5,532 immunoassay analyses of atrazine and metolachlor were performed in assessing the state aquifers for these two pesticides.
- Urban pesticide monitoring was performed in the years 2006-2008 in three metropolitan areas. The samples obtained underwent 895 immunoassay analyses and 21 laboratory analyses.
- The IPD contains data for 3,426 pesticide analyses for the 33-year period prior to the year 2000.
- Indicating a more intense pesticide monitoring effort since the year 2000, the IPD has data for 4,364 pesticide analyses performed over the past six to seven years.

This assessment of Texas pesticide monitoring clearly shows a notable increase in the number of groundwater monitoring samples analyzed for pesticides since 2000. The success of the program further indicates that a combined use of immunoassay analyses with cooperative monitoring, are the reasons for this success. The final item of importance is that there appear to be no serious pesticide groundwater contamination issues for the pesticides monitored in Texas. While there are still data gaps and still a fairly limited number of pesticide monitoring data points from which samples were analyzed by laboratory methods, the extensive monitoring that has been completed since 1999 provides a good case that there are no serious issues in Texas related to pesticides in groundwater.

The presentation was followed by a question and answer period. Bill Harris (TAR) asked why TCEQ sampled in Hidalgo County, as there are few wells present. Mr. Cherepon replied that the decision to sample there was made because of the large amount of agriculture in the Lower Rio Grande Valley, the area was identified as being vulnerable on vulnerability maps developed by TNRCC (TCEQ) and Dr. Goss of the Blackland Research Center, and because the TCEQ

decided there were insufficient wells in other vulnerable areas such as San Patricio County. A follow-up question inquired as to what the vulnerability maps were based on. Dr. Peters replied these maps were based on pesticide usage, and soil and chemical characteristics. Dr. Harris also asked where surface water samples were taken in Bailey/Parmer Counties. Mr. Cherepon replied from the Muleshoe Wildlife Refuge lake, a playa in Friona, and probably another playa lake. Dr. David Villarreal (TDA) also had several questions. He wanted to know why the pesticide monitoring program is being continued if we have no pesticide contamination issues in Texas. Mr. Cherepon replied that EPA continues to require the assessment of certain pesticides. There has also been a change in focus over the years from atrazine and metolachlor to a list of other pesticides identified by EPA. Also, as mentioned earlier there still remain certain data gaps. Furthermore limited funds have made it difficult to get enough laboratory analyses performed in addition to the immunoassay method, which is a screening method. Because of a limited budget each year, it has not been possible to analyze for all potential pesticides. Also, some research indicates that even low amounts of certain pesticides may be damaging to aquatic organisms (atrazine on frogs and salamanders), and may go unnoticed for a generation or two; and, that should this be proven, maximum levels allowed by regulations could change. Since the new administration is listening intently to these arguments, there could be changes to Maximum Contaminant Levels (MCLs). Dr. Villarreal also asked why newer pesticides, such as fipronil, which have been identified as having potential future contaminant issues, as indicated by USGS monitoring, are not being monitored. Mr. Cherepon said that these are too new, have no standard analytical methods, are expensive analyses, and are only showing up in trace concentrations at present. Dr. Villarreal's final question was why there is only an agricultural chemicals subcommittee. Why not subcommittees for other chemicals and groups of chemicals? Mr. Cherepon said the other chemicals are already strictly regulated through programs such as RCRA and NPDES, which require extensive monitoring, while pesticides have not been so strictly regulated and have been applied to land and water without any required follow-up monitoring. Also, the EPA focus, through the State Management Plan (*Texas State Management Plan, for Prevention of Pesticide Contamination of Groundwater*, presently called the Pesticide Management Plan, or PMP), was initially aimed at the agricultural chemicals that were more often detected in groundwater. Some states have had serious problems with certain pesticides, many of which are also being applied in Texas.

IV. Business Items

None were scheduled for this meeting.

V. Information Exchange – Pesticides of Interest Tracking System entries for 2008

Mr. Cherepon (TCEQ) provided a handout of the pesticide monitoring work plan for 2009, as well as a brief summary of planned upcoming sampling activities. This included mention of ongoing monitoring of PWS wells with previous atrazine detects in the Panhandle region and a re-sampling of certain wells and springs in Austin the first week in May. An estimated 53 samples will be analyzed by 4 lab methods and 5 immunoassay kits, which will include many pesticides on the SFIREG list of 57 pesticides for which previous analyses have not been performed. Cooperative monitoring is also continuing, with some of these samples also to be analyzed for the five pesticides for which immunoassay kits have been purchased.

VI. Announcements

No announcements were made at this meeting.

VII. Public Comment

No public comments were made.

VIII. Adjournment

With no further announcements or public comment, the meeting was adjourned.

Recorded and transcribed by Alan Cherepon.

In their afternoon meeting, the decision was made by the Texas Groundwater Protection Committee that its FY09 fourth quarter meeting would take place on 7/15/09 at 1:00 P.M., in TCEQ Building F, Conference Room 2210. The fourth quarter Agricultural Chemicals Subcommittee meeting will take place on the same date and in the same room at 10:30 A.M.

Attachments

Presentation slides on the History and Summary of the Agricultural Chemicals Subcommittee monitoring programs

The 2009 pesticide monitoring work plan