AGRICULTURAL CHEMICALS SUBCOMMITTEE MEETING RECORD

TIME AND DATE:
10:30 AM, October 16, 2013

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

PURPOSE OF MEETING:
The FY14 First 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 Extension Service [TAES]
Texas Water Development Board [TWDB]
Texas State Soil and Water Conservation Board [TSSWCB]
Texas AgriLife Research [TAR]

REPRESENTATIVES

Joseph L. Peters	Chair, Member, TCEQ, Austin
Michael Hare	Member, TDA, Austin
Mark Matocha	Member, TAES, College Station
Janie Hopkins	Member, TWDB, Austin
T. J. Helton	Member, TSSWCB, Temple
Kevin Wagner	Member, TAR, College Station

AGENCY STAFF

Alan Cherepon	TCEQ, Austin

INTERESTED PARTIES

None in attendance for this meeting

MEETING SUMMARY:

I. Opening Remarks

The Chairman of the Agricultural Chemicals Subcommittee, Dr. Joseph Peters (TCEQ), called the meeting to order. Subcommittee member David Van Dresar (TAGD) was 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: Ms. Hopkins (TWDB), the Task Force Chair, provided a summary on the TWDB's completed and planned sampling activities. Her agency has experienced problems in getting analytical data back from the Lower Colorado River Authority Environmental Laboratory Services (LCRA ELS) lab due to their 20% reduction in staff which also coincided with the installation of a new LIMS (Laboratory Information Management System). The new LIMS involved having to train their lab staff on the new system, with the TWDB analyses being used as a sort of training exercise. TCEQ also experienced the same type of delays from the LCRA ELS lab this year. The TWDB has yet to receive all their results, so a full summary report on the 2013 TWDB sampling will have to wait till the next meeting. Ms. Hopkins reported that the planned 2014 sampling will include the Carrizo-Wilcox, Seymour, Sparta, Yegua-Jackson, Lipan, Queen City, and possibly one or two other aquifers. Following the task force reports Mr. Cherepon (TCEQ) will make two presentations: one a summary of all the pesticide monitoring of groundwater done under TCEQ's Pesticide Monitoring Program for 2013, and the second, under the business agenda item, a laying out of the proposed monitoring plan for 2014.

Education Task Force: Dr. Matocha (TAES) and Mr. Cherepon (TCEQ), the two co-chairs for the task force, had nothing to report.

PMP Task Force: Mr. Cherepon (TCEQ), a co-chair of this Task Force, reported that assessments on all 57 pesticides from the State FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) Issues Research and Evaluation Group (SFIREG) list, as required by the EPA for the grant, was done in 2012. No additional assessments were necessary for 2013 nor are any anticipated for the remainder of year unless evidence comes to light of a pesticide not currently on the list having contaminated groundwater in the state.

III. 2013 Groundwater Monitoring for Pesticides Report

Since the federal government remained in a partial shutdown, the USGS guest speaker was unable to attend and make his presentation. Therefore, the presentation portion of the meeting proceeded with Mr. Cherepon (TCEQ) who provided highlights of TCEQ's 2013 monitoring season for pesticides in groundwater.

For the 2013 monitoring activities, the primary targets were wells previously sampled by TCEQ's Superfund program with known previous high atrazine detects in the Panhandle. The first set of samples and immunoassay analyses were run in 2011. These results were implausibly high in atrazine, especially considering that corresponding laboratory analytical results were very low. As a follow-up, the Acuff-Cimarron Road area was resampled again in 2012, with immunoassay analyses this time indicating only a few low atrazine detects, more in line with the laboratory results. The three areas were again resampled in 2013 to confirm there were no high concentrations of atrazine at any of the sites.

A total of 20 samples were collected in three different areas: Dimmitt, Lorenzo, and NE Lubbock. Minor details on the sites were provided by Mr. Cherepon. All samples were analyzed by immunoassay (IA) method for atrazine, triazine metabolites, chlorpyrifos, and 2,4-D, and 20 samples were also analyzed by the LCRA ELS laboratory using three methods. The immunoassay analyses indicated a few detects at low concentrations for atrazine (all below 0.5 ppb), and the lab analyses indicated only a trace amount of atrazine (0.1 ppb) in one sample. Since the detections were confirmed to be low, Mr. Cherepon concluded that TCEQ would not need to sample the wells again. Summary tables were provided comparing atrazine IA results for 2011 through 2013. The final conclusion was that the high atrazine values obtained by immunoassay in 2011, on the first round of samples, were faulty.

Mr. Cherepon also described some of the conditions encountered at the sampling sites. One location had numerous pesticide containers stored rather haphazardly within the well house, as shown in a couple of the slides showing photos of the well. Dr. Hare (TDA) suggested that the TCEQ sampling team should notify TDA when they see this, as it is a label violation. However, a counter argument was made suggesting that if sampling crews begin reporting these types of violations it could become difficult to gain permission to sample wells, since the well owners could become fearful of being cited for pesticide violations.

Mr. Cherepon continued his presentation by describing the 2013 Cooperative monitoring activities with the Texas Water Development Board (TWDB). During the monitoring year the TWDB provided 239 samples obtained from wells completed in the Gulf Coast aquifer. Analyses were as follows:

- 249 atrazine IA analyses were performed, which resulted in 76 low detects, with the highest at 0.42 ppb.
- 100 triazine metabolite IA analyses were performed, which resulted in a few very low detects that were likely false positives.
- 69 2, 4-D IA analyses were performed, which resulted in a few very low detects that were likely false positives.
- 59 chlorpyrifos IA analyses were performed, which resulted in a few very low detects that were likely false positives.

In summary, 20 samples were collected by the TCEQ sampling team from the Superfund program sites in the Panhandle and analyzed by IA and laboratory. The results indicate very low concentrations of atrazine and trace detects of triazine metabolites and chlorpyrifos, likely false positives. Past experience indicates that laboratory analyses for atrazine result in non-detections when performed on duplicate samples for which immunoassay analyses have indicated such low concentrations. The same would be true for the cooperative monitoring IA results that indicate only trace amounts of atrazine or other IA analyzed pesticides. These low concentrations can be considered to be false positives.

Following the presentation, Ms. Hopkins asked to see the cooperative sample location map again, as there were a couple of counties with no samples indicated, and she wanted to verify which counties these were. Upon review, the counties appear to

include Wharton, Matagorda, San Patricio, and Nueces Counties. Also, there were 24 samples taken in the Lower Rio Grande Valley for assessing brackish waters in that region. Dr. Hare asked about which pesticides were being analyzed for, and whether they included alachlor, metolachlor or others. Mr. Cherepon answered that in the past TCEQ had analyzed for other pesticides by IA, including alachlor and metolachlor, but since detections of these had been rare, and since the lab analyses includes these, it was decided to drop these particular IA analyses in the screening process.

IV. Business Items – Proposed FY14 Pesticide Monitoring Plan

Mr. Cherepon provided a brief presentation on the proposed FY14 Pesticide Monitoring Plan. The complete draft plan was provided as a handout. There will be two tasks for the 2014 monitoring year, one being the continuation of Cooperative monitoring with the TWDB. It is felt that cooperative monitoring will continue to be useful, even after the state has been covered a number of times under this program, because some different IA kits will be used, which will give results for additional pesticides, and furthermore, because a good number of the cooperative monitoring wells change from sampling cycle to sampling cycle, giving an opportunity for a more thorough coverage. One minor update to the cooperative portion of the draft plan was in the targeted aquifers to be sampled by TWDB. The updated list was presented by Ms. Hopkins earlier in her SSTF summary. Mr. Cherepon reiterated the updated list of aquifers in his presentation of the plan.

The second proposed task under the plan will be on-going monitoring of Panhandle PWS wells with known previous high atrazine detections. These wells were not sampled in 2013. Mr. Cherepon listed the towns where samples are to be collected along with the anticipated number of wells to sample at each. The additional pesticide monitoring data from these locations and wells will provide evidence to EPA of how the education, outreach, and monitoring have contributed to an effective management leading to a slow but steady reduction in atrazine concentrations over the years that the PMP has been in effect.

The monitoring plan will allow for the use of certain new IA kits, should they become available, or the use of certain universal methods of pesticide analysis by laboratory, should they become available and prove to be useful and affordable for the monitoring program. Mr. Cherepon mentioned he was researching these methods and came across a paper from 1994 that studied the incidence of Imazapyr, picloram, and triclopyr in drinking water, when used in urban settings. Dr. Hare asked if they included such pesticides as tetrathiuron, as this pesticide is starting to show up in drinking water. Mr. Cherepon answered that this pesticide was not one of those covered in the material that he had researched. He added that a company called Chipotle Group had contacted him about their being able to develop just about any pesticide IA kit, and wanted TCEQ assistance by providing some sort of endorsement that would indicate a need and market for the development of IA reagent kits for additional pesticides. Their objective was to show a need so as to obtain government development money to develop new kits. Mr. Cherepon stated that he informed them that TCEQ would like to see such kits

developed, but that TCEQ would be analyzing far too few samples to justify such an undertaking.

A brief expansion on pesticide universal methods followed, with Mr. Cherepon explaining that some states are using new methods that can analyze for over a hundred pesticides using one method rather than numerous methods. Mr. Cherepon asked Dr. Hare whether the TDA laboratory had done any universal method development. In response Dr. Hare gave a name of a contact at the TDA laboratory (Mr. Bizzell). He went on to explain that, unfortunately, the method they use is more for food testing, and furthermore, the TDA lab would not be able to accommodate TCEQ's requirement for only a few analyses. Other states are pursuing these methods and actually doing some analyses and studies to establish universal methods. The issues in using these methods include higher detection/quantitation limits, higher cost, and the difficulty of finding a lab that would be willing to perform the analysis on such a limited number of samples. Dr. Hare asked what the cost is per sample using these methods. Mr. Cherepon responded that it would be somewhere around $800-$1,000.

Since the plan was sent to members of the Site Selection Task Force for review in advance of the meeting, little discussion followed. With the reiteration of the minor change in the plan to the list of aquifers to be monitored by cooperative monitoring, a motion was made by Kevin Wagner (TAR) and seconded by Ms. Hopkins to approve the plan. A voice vote unanimously acceded to the motion.

V. Information Exchange – Status Updates

Ms. Hopkins announced that the TWDB's new Executive Administrator is Kevin Patteson, and that they have a new Board of Directors. She also reminded everyone to vote for Proposition 6 on the November ballot.

Dr. Hare asked Mr. Cherepon if he recalled getting the annual USDA Pesticide Data Program (PDP) reports from him. The reports were prepared since 1991 to address pesticides in the diet of infants and children, and include information on pesticide residues in food and drinking water. Bottled water and groundwater have been included the past two years, as the program has continued to expand. The folks who prepare this report say the data is legally defensible and is used for risk assessments as related to exposure levels, by EPA.

Mr. Cherepon added that his supervisor's daughter and her classmate at school asked for help in obtaining some data on pesticides in foods and water. Dr. Hare was contacted for this information, and he informed Mr. Cherepon that it was available on-line, in the form of these reports. The reports are not consistent from year to year as to which states are included, and the groundwater data in the reports is very limited, especially considering that the focus is on a different set of states each year. Ms. Hopkins asked if this is where the top ten pesticides for foods come from. Dr. Hare replied that, yes, the environmental group, that gathers the PDP data and compiles this list, gleans the top ten pesticides from these reports, but that the data are probably not analyzed in the best or recommended way, and that organic foods are just beginning to

be covered. Mr. Cherepon added that a recent issue covered in the reports was arsenic in rice, but from what he could tell, the difference in concentrations in different rice was, from a practical point of view, inconsequential. Dr. Hare replied that arsenic is naturally occurring, and pesticides containing arsenic were never applied to food crops such as rice. This renders the data to be of limited value, unless the goal is to research the effects of nearby coal powered plants, or investigate the consequences of growing rice in former cotton fields, which in the past may have had considerable arsenic applied to them and considering that arsenic can remain in the soil for a long period of time.

Dr. Matocha (TAES) said that EPA is reviewing malathion for re-registration consideration and he had been asked for input. Mr. Cherepon mentioned that malathion is being used for the boll weevil eradication program in cotton crop areas, as well as being used to kill spider mites on trees. Dr. Matocha didn't think it would have any significant impact in Texas, even though it was being used on the boll weevils, since this use is primarily in rural areas in limited applications.

VI. Announcements

Mr. Cherepon had several items to share with the subcommittee;

- The EPA Region 6 pesticide meeting in Addison scheduled for the coming week was cancelled/postponed due to the federal government partial shutdown/furlough.
- The same would likely affect the EPA annual QA conference in Dallas.
- The annual Texas Plant Protection Conference will be held in Bryan, December 10th-11th.

VII. Public Comments

There was no public comment, there being no one present from the public.

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 (TGPC) that its FY14 second quarter meeting would take place on Wednesday, January 15, 2014, at 1:00 P.M., in the TCEQ Building F, Conference Room 2210. Since to the Agricultural Chemicals Subcommittee (ACS) and the Groundwater Research Subcommittee hold their meetings every other quarter (twice a year) on the same day as the TGPC meeting, their next meeting will take place on the same date and in the same room as the third quarter meeting of the full committee. This date will be determined at the next quarterly meeting of the TGPC in January. The next ACS meeting will be held again at 10:30 A.M.