AGRICULTURAL CHEMICALS SUBCOMMITTEE MEETING RECORD

TIME AND DATE:
10:00 AM, August 19, 2004

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

PURPOSE OF MEETING:
The FY04 Fourth Quarter Meeting of the Agricultural Chemicals Subcommittee of the Texas Groundwater Protection Committee.

ATTENDEES:

AGENCIES

Texas Department of Agriculture [TDA]
Texas Commission on Environmental Quality [TCEQ]
Texas Water Development Board [TWDB]
Texas State Soil & Water Conservation Board [TSSWCB]
Texas Cooperative Extension [TCE]
Texas Agricultural Experiment Station [TAES]
Texas Alliance of Groundwater Districts [TAGD]
Texas Structural Pest Control Board [TSPCB]

REPRESENTATIVES

Steve Musick	Chair, Member, TCEQ, Austin
Ambrose Charles	Member, TDA, Austin
Janie Hopkins	Member, TWDB, Austin
Bruce Lesikar	Member, TCE, College Station
Kevin Wagner	Member, TSSWCB, Temple
Allan Jones	Member, TAES, College Station
Barry Miller	Member, TAGD, Gonzales
Jeff Isler	Member, TSPCB, Austin

AGENCY STAFF

Joe Peters	TCEQ, Austin
Alan Cherepon	TCEQ, Austin
David Davis	TCEQ, Austin
Lynne Fahlquist	USGS, Austin
Mike Pfeil	TCEQ, Austin
Thomas Hilton	TSSWCB, Austin
Richard Eyster	TDA, Austin

INTERESTED PARTIES

Ed Baker	Syngenta Crop Protection, Mineola
Donna Long	DLS Technologies, Inc.
George Caldwell	Texas Farm Bureau, Waco

MEETING SUMMARY:

I. Opening Remarks

The Chairman of the Agricultural Chemicals Subcommittee, Mr. Steve Musick (TCEQ), called the meeting to order. He welcomed everyone to the meeting, and had everyone introduce themselves. After these preliminaries, Mr. Musick proceeded to the Task Force Reports.

II Task Force Reports

Site Selection Task Force: The Task Force Chair was represented by Janie Hopkins (TWDB), who provided a brief summary of work the TWDB and cooperating entities have performed this fiscal year. The TWDB continues with the cooperative monitoring program, primarily in the High Plains aquifer. The TWDB expects approximately 700 samples, but only have about 500 samples thus far. The High Plains Underground Water Conservation District #1, The North Plains Groundwater Conservation District, and the Panhandle Groundwater Conservation District have collected about 100 samples for the TWDB monitoring program. These districts and the TWDB will continue sampling into October.

The TWDB monitoring budget was sufficient this year to enable special analyses for isotopes such as tritium and carbon 14, as well as low radioactivity detects in the Hickory District's area. They have also attempted to sample in the Brazos River Alluvium, but couldn't locate any wells, or else none of the well owners had details about their wells, such as total depth, year drilled, etc. Next fiscal year they plan on sampling in the Gulf Coast Aquifer region. Mr. Musick asked whether the TWDB conducted any monitoring in the minor aquifers as indicated in the previous meeting. Ms. Hopkins replied they had collected 81 samples in the Dockum, 23 in the Hickory, some in the Cenozoic Pecos Alluvium, 6 in the Ellenberger/San Saba/Rita Blanca/Blaine aquifers, and 5 in the Seymour. When asked where in the Brazos River Alluvium they had attempted to sample and whether they analyzed for pesticides, she said she would have to look up this information, and that they continued to collect vials for TCEQ to conduct immunoassay analyses for pesticides.

Alan Cherepon (TCEQ) provided a handout summarizing groundwater monitoring activities for pesticides during the 2004 fiscal year. Cooperative monitoring samples for immunoassay analyses has already totaled 452 samples, 140 of which remain to be analyzed for atrazine and metolachlor. The TCEQ analyzed 68 samples collected by TWDB, for atrazine and metolachlor, by immunoassay method. 56 wells have been sampled, primarily from 10 PWS systems, with 26 samples from two trips taken in for lab analysis of pesticides. Additional monitoring will be conducted at the Hale

County Airport site by the TCEQ Superfund program staff next week.

Education Task Force: The Task Force Chair Dr. Bruce Lesikar (TCE), reported that Dr. Dana Porter (TCE, Lubbock) and Dr. Monty Dozier (TCE, College Station) continue to work on educational curriculum and outreach materials which include addressing atrazine issues in the Panhandle. Dr. Porter is working with Montey Dozier and the County Agents, who want electronic materials they can distribute at the local meetings. They have also ordered several handbooks on water quality concerns, and are planning for additional training in the Panhandle next year.

No other Task Forces had anything new to present.

III. Diazinon Issues in Urban Settings & the Trinity River Basin

Alan Cherepon and Mike Pfeil (TCEQ) provided slide handouts and an overview presentation on diazinon. They utilized an existing slide show developed by EPA in 2000, as well as a several others they developed or borrowed from other sources. Material covered background on use and regulatory history, environmental fate and monitoring, the Texas bio-monitoring program (WET), a case study, drinking water, and a summary.

Diazinon was initially registered in 1956, but is primarily used at present for fire ant control and rodent burrows. EPA conducted a special review on diazinon in 1986 due to bird deaths related to golf course applications and a widespread number of detects in surface water effluent discharges in urban settings. This study lead to restricting use, ceasing the manufacturing in July 2003, and the removal from retail sales at the end of 2004.

Most (83%) diazinon is used in urban, residential and some non-residential applications, primarily for the control of fire ants. Only 17% of all diazinon use is for agricultural application, on selected field crops, vegetables, fruits, nut trees, and livestock. Urban use has resulted in significant impact to surface and ground water. Diazinon has a half life of 6 weeks at the surface, and considerably longer in the subsurface. Although more studies are needed on them, the degradates are many times more toxic than the parent diazinon. While some other states have a more serious problem with diazinon, Texas presently has no TMDL issues with this pesticide.

Mr. Pfeil explained Texas bio-monitoring program, which began in the late 1980s. The Whole Efficient Toxicity (WET) approach tests all constituents and organisms for negative impact. Several system failures resulted in the adoption of Toxicity Reduction Evaluations (TRE), where the responsible chemical is identified, and an education program developed in the impacted system, as well as a strategy developed to further reduce the impact. The initial idea was to establish WET limits for Waste Water Treatment System discharge if they failed the WET test, and they would be considered in violation of their permit. The Texas Municipal League fought this approach, as they had little to no control over non-point sources from thousands of different small sources (yards). The city of Greenville was the first system to fail this test in 1990, and the only system to sign an agreement for a WET Limit. After this, the state reached a compromise to just make it part of their WWTP permit, in which they were required to monitor and conduct educational efforts to reduce

diazinon in the environment. Presently, 10 Texas cities have this incorporated into their permit language, after which time, there have been no exceedences solely from diazinon in a system for over 5 years. These cities are primarily in the Trinity River Basin around the Dallas-Ft. Worth area.

Mr. Cherepon went over some drinking water and groundwater studies findings. More than 6000 wells have been sampled by the USGS NAQWA and EPA/state Non-Point Source programs, with about 2 % having diazinon detects, and it is more an issue in highly populated areas.

In summary, diazinon was registered in 1956, and eventually became a primary pesticide to combat fire ants and the treatment of rodents burrows. Impacts to birds and widespread detection in surface water resulted in restricted use and eventual phase out from retail sales by the end of 2004. The Texas bio-monitoring program and its incorporation into WWTP permits, along with educational efforts have resulted in no diazinon impacts in the state for more than 5 years. Ten POTWs in Texas have/had diazinon abatement programs, but the removal of this pesticide from most of the urban applications, along with education programs have resulted in decreased impact in Texas.

Some questions followed, such as which pesticide has replaced diazinon. Mr. Baker noted Dursban as one, but there are others. The USGS NAWQA studies, which have taken over 6000 well samples across the nation and included diazinon analysis, have detected the pesticide in about 2% of the nation's aquifers. Results in Texas were not immediately known by Ms. Fahlquist (USGS), but she believes they were fairly low detects.

IV Business Items for Discussion and Possible Action

A. Texas Groundwater Protection Committee Legislative Report and Recommendations

Mr. Musick briefly mentioned the Legislative Report and recommendations will be addressed at the Texas Groundwater Protection Committee meeting in the afternoon, and asked one last time whether anyone on the Agricultural Chemicals Subcommittee had anything further to add or say about this document. He reminded the subcommittee that since the EPA hasn't shown any sign of moving on the Pesticide Management Plan program, there didn't appear to be any need to request additional funding for the program in Texas. Especially since there are no serious pesticide issues, only an isolated area in the Panhandle. Educational issues will be addressed in the afternoon meeting. Since there were no further comments, the subcommittee moved on to the next agenda item.

B. Groundwater Contamination Notice Requirements

The Chair briefed the subcommittee on notification requirements for impacted private well owners and potential to affect nearby well owners. House Bill 3030 requires notification by TCEQ whenever drinking water wells of private well owners are impacted. The TCEQ has a workgroup addressing the best way to approach the requirements under this bill, and will report the findings and decision to others upon process finalization by TCEQ administration. Mr. Cherepon's handout not only highlighted HB3030, but also more general and applicable notification requirements for

pesticide detects in groundwater. These must be included in annual reports to the state and EPA, and the TWC 5.236 requires local, and county official notification. This is the responsibility of the TCEQ, and not the other agencies. The FIFRA grant PMP program also has reporting requirements applicable to the pesticide program.

V. Information Exchange

Update on the Atrazine Interim Re-registration Eligibility Decision (iRED)

Ed Baker, a consultant for Syngenta, provided a brief update on the status of the atrazine iRED. Recent developments since the last ACS meeting include;

- All pesticide manufacturers have signed off on the agreement to participate,
- the volunteer monitoring of 9 reservoirs in Texas began in January, with data potentially available thru an EPA website (Mr. Baker will verify data accessibility),
- Navarro Mills (west of Corsicana) has the highest detects so far (2 to 3 near 3 ppb), and that more intense monitoring is scheduled during higher use periods for atrazine.

VI. Public Comments

None provided.

VII. Announcements

Mr. Cherepon announced the Texas Water Monitoring Congress will take place at the Pickle Research Center from 9/15-17/04.

The High Plains Symposium will take place in Lubbock from 12/7-09/04, and will focus on playa lakes and their impact on the aquifer.

Mr. Miller announced that the Senate Interim Committee meeting has wrapped up recently in Lubbock, with some interesting results and potential for the upcoming session.

Dr. Lesikar announced that on 9/14/04 a groundwater marketing meeting will take place in Nocogdoches. This is the 3rd such meeting.

Dr. Jones said they are working on a 319 funded nitrates study in the Seymour aquifer under various agricultural scenarios, but it is not limited to groundwater per se.

Mr. Musick announced the BEG is conducting a nitrate migration to groundwater study for TCEQ. He added that on 11/18-19/04, a groundwater quantity/sustainability meeting will take place at the Capitol in Austin.

The decision was made by the Texas Groundwater Protection Committee that the FY05 first quarter

meeting of the Agricultural Chemicals Subcommittee will take place on 10/21/04 at 10:30 a.m., in TCEQ Building F, Conference Room 2210.

VIII. Adjournment

Recorded and transcribed by Alan Cherepon.

Attachments

ACS Meeting Notes /FY04 Groundwater Monitoring Summary

Diazinon Presentation Slides

Notification Issues Related to Pesticide Detections in Groundwater