



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 12 1990

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Karen R. Blundell
Senior Registration Specialist
BASF Corporation
2505 Meridian Parkway
Durham, N.C. 27713

Dear Ms. Blundell:

The Agency has completed its review of information submitted in response to the Acifluorfen Groundwater Data Call-In Notice dated August 25, 1987, and has documented its decisions reached at a November 21, 1989, meeting with Rhone-Poulenc and BASF. The Agency addressed both the completed Limited Prospective Monitoring Study and the on-going Small Scale Retrospective Groundwater Monitoring Study. Following is a summary of the Agency's decisions regarding the two studies.

Prospective Study

1. While the Agency awaits word from Wisconsin and New York regarding the status of 24c labeling restricting the use of acifluorfen in certain counties, Rhone-Poulenc and BASF must also identify acifluorfen use areas that are as highly vulnerable to ground-water contamination as the Central Sands of Wisconsin. The structure for this search has been previously outlined during discussions between EPA's Groundwater Section and Rhone-Poulenc/BASF representatives. Submission of this information is considered part of the original data call-in for acifluorfen and is due no later than August 1, 1990. *extended to 8/15/90*
2. We have the following comments regarding the Final Report for the Prospective Study.
 - a. Additional information is needed to substantiate claims about preferential flow including, where available, textural analyses of soils, measurements of soil hydraulic conductivity and location of soil samples.

- b. Maps are needed showing location of all monitoring or sampling points and clearly differentiating between them by type. This must include cluster wells, lysimeters, and soil borings. Additional maps should indicate new wells or soil cores taken in separate phases of sampling or this information should be shown clearly on one map.
- c. Revise Tables 6a-e so that they indicate which samples are duplicate analyses, which are composite samples, and those that are individual analyses of non-composite samples.

Provide the additional information required in conjunction with number 1. above.

Retrospective Study

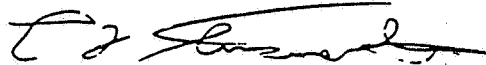
- 1. Additional monitoring and site characterization is required at each of the five sites selected. The attached memorandum (Elizabeth Behl, November 30, 1989) discusses the agreement reached between the registrants and EPA ground-water staff regarding these requirements. The final report for the Retrospective Study is due no later than April 1, 1991.
- 2. We have the following comments regarding the preliminary progress report information submitted for the Retrospective Study thus far.
 - a. As previously stated, additional acifluorfen applications must be made and monitoring activities extended. See the January 16, 1990, EPA review and the November 30, 1989, memorandum for details on how to proceed with monitoring studies at each site.
 - b. More information on site characterization must be submitted. This should include a description of the local hydrology, location maps, site specific hydrogeology, and site plans must be submitted. See the January 16, 1990, review for details.
 - c. The soil sampling increments used in this study, especially in the root zone, are too large to adequately characterize variations in soil texture and pesticide residues. Future sampling must be done using smaller increments as described in EPA's Draft Guidance for Ground-water Monitoring Studies (Eiden et al.).

- d. The SCS soil series should be reported for each of the sites.
- e. The screened interval of each well must be reported.
- f. Well purging techniques must conform to established guidelines.
- g. The location of recording weather stations is not given. This must be provided along with the distance from the station to the sites.
- h. Additional comments critiquing the study to this point are contained in the January 29, 1990, review attached.

3. Since a final protocol has not been approved for this study, a protocol must be submitted within 30 days of receipt of this letter. Please direct all correspondence to the attention of Tom Luminello at mailcode H-7508C.

If you have any questions concerning this letter please contact Tom Luminello of the Generic Chemical Support Branch at (703) 557-0062.

Sincerely,



Edwin F. Tinsworth
Director, Special Review
and Reregistration Division

Attachments:

- Reviews - November 20, 1989
- January 16, 1990
- January 29, 1990 ✓
- Behl Memo - November 30, 1989

cc: Frank Sanders, FHB
Joanne Miller, PM-23
Hank Jacoby, EFGWB
Betsy Behl, EFGWB