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

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

JAN 16 1991

MEMORANDUM

SUBJECT: Retrospective ground-water monitoring studies for Sodium Acifluorfen.

FROM: Elizabeth Behl, Hydrogeologist
Ground Water Section
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Environmental Fate and Effects Division (H7507C)

THRU: Henry Jacoby, Chief
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TO: Tom Luminello, Chemical Review Manager
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Special Review and Reregistration Division (H7508C)

BASF and Rhone-Poulenc have been conducting small-scale retrospective monitoring studies at 5 locations in representative use areas. Two of these sites were selected and monitoring was initiated without the approval of OPP. On 11/21/89 a meeting was held between representatives of EPA, BASF, and Rhone-Poulenc to discuss the status of the small-scale retrospective studies. At that meeting it was agreed that because of inadequate usage history of acifluorfen at two of the sites (Indiana and North Dakota) monitoring should be extended. It was agreed that an additional application of acifluorfen would take place in the Spring/Summer of 1990, and monitoring would continue through the winter.

Since this meeting, the ground water section had reviewed several other field studies for pesticides, and is of the opinion that a 6 month sampling period is a inadequate to allow us to draw conclusions about the leaching potential of acifluorfen in representative use environments. Studies of other chemicals indicate that at least a year is required before residues are detected in ground water in many locations. A prospective study was completed for acifluorfen in July, 1989. This type of study is conducted in a highly vulnerable leaching environment and the site is instrumented with more wells than at retrospective study sites. Detections of acifluorfen in ground water in the prospective study were sporadic until nearly 10 months after application of acifluorfen.

Both of the retrospective sites under consideration are located in areas where the climate is colder. In this type of environment, residues are expected to degrade at a slower rate. This is an additional factor that supports extending the monitoring period at the retrospective study sites in Indiana and North Dakota.

BASF has continued to sample both soils and ground water at the retrospective sites in Indiana and North Dakota. The Ground Water Section would like to see ground-water sampling continue for at least a year after the pesticide was applied, that is until June/July of 1991. Unless pesticide residues are detected in soils at the study sites in the previous sampling period, it is not necessary to continue to collect soil samples.

The Ground Water Section would like an interim report, summarizing soil and water data through the end of 1990. If you have any questions, please contact me at 557-2128.

cc: A. Barton
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