12-8-87

Shaughnessy No. 080803
Date out of EAB 12 8 87

To: Taylor/Gale
Product Manager 25
Registration Division (TS-767C)

From: Thomas Dixon, Chief
Monitoring Section
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

Thru: Paul F. Schuda, Chief
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

Attached, please find the EAB review of....

Reg./File#: 42006

Chemical Name: 2-chloro-4-ethylamino-6-isopropylamino-S-triazine

Type Product: HERBICIDE

Product Name: ATRAZINE

Company Name: CIBA-GEIGY

Purpose: COMMENT ON REPORT OF ATRAZINE FINDINGS IN SURFACE WATER

Date Received: 11/18/87 Action code: 405

Date Completed: 12/8/87 EAB #(s): 80144

Monitoring study requested: ____ Total Reviewing Time 12 hrs.

Monitoring study voluntarily: ____

Deferrals to: ____ Ecological Effects Branch

____ Residue Chemistry Branch

____ Toxicology Branch

1. Chemical: Atrazine

2. Test Material: N/A

3. Study Action Type: Report of detectable Atrazine in water.

4. Study Identification:
Subject: Report of Atrazine Findings in Surface Water, Letter to Robert Taylor, PM-25, EPA. October 27, 1987
Author: Karen Stumpf, Senior Regulatory Specialist, CIBA-GEIGY Corp.

5. Reviewed by:
Leslie M. Davies-Hilliard
Chemist
Monitoring Section
Exposure Assessment Branch, HED (TS-769C) Date: 12/8/87

6. Approved by:
Thomas E. Dixon, Chief
Monitoring Section
Exposure Assessment Branch, HED (TS-769C) Date: 9 Dec 87

7. Conclusions
EAB acknowledges the attached data submitted by CIBA-GEIGY. We will maintain a record of the monitoring results for future use.

8. Recommendations:
None.

9. BACKGROUND:
CIBA-GEIGY submitted data under FIFRA Section 6(a)(2), in a letter written by Karen Stumpf on October 27, 1987 to Robert Taylor, Product Manager (25). The surface water data for Atrazine was collected in June (Round No. 19) and July (Round No. 20) of 1987. Atrazine data collected in May, June and August of 1987 on a contaminated well was also included.

10. Discussion:
Twenty-five samples were analyzed for Atrazine each month in June and July. CIBA-GEIGY reported the limit of detection as 0.1 ppb. Twenty-two of the twenty-five samples collected per each month were found positive for Atrazine. The levels ranged in June from a minimum of 0.15 ppb to a maximum of 11.0 ppb with an average of 1.4 ppb. In July the Atrazine levels ranged from a minimum of 0.11 ppb to 3.5 ppb with an average of 1.0 ppb. The maximum values for both months occur at Little Crooked Creek,

an average of 1.4 ppb. In July the Atrazine levels ranged from a minimum of 0.11 ppb to 3.5 ppb with an average of 1.0 ppb. The maximum values for both months occur at Little Crooked Creek, Washington Co., IL. Details of the results are found in TABLE I.

Atrazine data was also collected from a private irrigation well (20 foot depth) in Freeland, Michigan. There is no mention in the CIBA-GEIGY letter of the total number of well samples taken nor the number of those that were positive for Atrazine. CIBA-GEIGY does provide the following Atrazine concentrations found in 1987 as 3.0 ppb in May, 4.0 ppb in June and 2.0 ppb in August.

CIBA-GEIGY attributes the well contamination to Atrazine treatment of a nearby field in the summer of 1986 and heavy rainfall in the fall of that year. They also state "Wells in the vicinity used for drinking are greater than 100 ft. in depth and no detections have been cited in these wells."

EAB does not accept or deny CIBA-GEIGY's explanation for the well contamination. The data submitted is not sufficient to substantiate conclusions.

11. Completion of one-liner:
Not Applicable.

12. Appendix:
Attached.

cc. Pat Holden, Groundwater Team Leader

TABLE I

ATRAZINE AVERAGES AND RANGES
JUNE AND JULY, 1987
GROUPED BY STATE

Location	River	PPB June	PPB Range	PPB July	PPB Range
Anoka Co., MN	Rum River	0.17		----	----
Palm Beach Co.,Fl	Palm Beach Canal	---	---	1.3	
Sussex Co., DE	Stockley Branch	0.15		1.2	
Thomas Co., GA	Ochlockonee R	0.24		0.13	
Buchanan Co., IA	Wapsipinicon R	0.65		0.72	
Marshall Co., IA	Iowa R	0.78		0.16	
Des Moines Co., IA	Skunk R	0.83		0.67	
Warren Co., IA	North R	0.60	0.60-0.83	1.6	0.16-1.6
McHenry Co., IL	Coon Creek	0.51		0.38	
Hancock Co., IL	Lamoine R	0.88		0.72	
Washington Co.,IL	Little Crooked Creek	11	0.51-11	3.5	0.38-3.5
Lagrance Co., IN	Pigeon R	0.23		0.56	
Vincennes Co., IN	Wabash R	3.4		3.2	
Bartholemew Co., IN	Clifty Creek	3.6		2.4	
Floyd Co., IN	Little Indian Creek	0.35	0.23-3.6	0.39	0.39-3.2
Reno Co., KS	Ninnescah R	0.66		0.57	
St. Landry Co.,LA	Bayon Teche R	0.97		0.46	
Ingham Co., MI	Deer Creek	0.22		0.11	
Huron Co., MI	Pigeon Creek	0.20		0.16	
Hilsdale Co., MI	Hog Creek	0.37	0.20-0.37	0.49	0.11-0.49
Merrick Co., NE	Platte R	0.57		2.8	
Clark Co., OH	Mad River	0.58		0.44	
Minnehaha CO., SD	Skunk Creek	2.7		0.13	
		AVG. 1.4		AVG. 1.0	

Agricultural Division
CIBA-GEIGY Corporation
P.O. Box 18300
Greensboro, North Carolina 27419
Telephone 919 292 7100

CIBA-GEIGY

October 27, 1987

Mr. Robert J. Taylor
Product Manager (25)
Registration Division (TS-767C)
Office of Pesticide Programs
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

Dear Mr. Taylor:

SUBJECT: REPORT OF ATRAZINE FINDINGS IN SURFACE WATER

In keeping with the intent of the Agency's proposed Interpretive Rule of FIFRA Section 6(a)(2), CIBA-GEIGY herewith submits the following report of findings of atrazine in surface water taken from the most recent rounds of sampling in our ongoing monitoring project:

Round No. 19

Number of Samples Analyzed: 25

Detection Limit: 0.1 ppb

Positive Detections:

Location	River	Sampling Date	Atrazine ppb
Buchanan Co., IA	Wapsipinicon R	6/16/87	0.65
McHenry Co., IL	Coon Creek	6/15/87	0.51
Hancock Co., IL	Lamoine R	6/16/87	0.88
Washington Co., IL	Little Crooked Creek	6/20/87	11
Lagrange Co., IN	Pigeon R	6/18/87	0.23
Vincennes Co., IN	Wabash R	6/20/87	3.4
Reno Co., KS	Ninnescah R	6/19/87	0.66
Ingham Co., MI	Deer Creek	6/18/87	0.22
Huron Co., MI	Pigeon Creek	6/18/87	0.20
Hilsdale Co., MI	Hog Creek	6/18/87	0.37
Merrick Co., NE	Platte R	6/18/87	0.57
Bartholemew Co., IN	Clifty Creek	6/21/87	3.6
Floyd Co., IN	Little Indian Creek	6/21/87	0.35
Sussex Co., DE	Stockley Branch	6/16/87	0.15
Thomas Co., GA	Ochlockonee R	6/16/87	0.24
Marshall Co., IA	Iowa R	6/15/87	0.78
Des Moines Co., IA	Skunk R	6/16/87	0.83
Warren Co., IA	North R	6/16/87	0.60
St. Landry Co., LA	Bayon Teche R	6/17/87	0.97
Anoka Co., MN	Rum River	6/17/87	0.17
Clark Co., OH	Mad River	6/17/87	0.58
Minnehaha Co., SD	Skunk Creek	6/17/87	2.7

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Round No. 20

Number of Samples Analyzed: 25

Detection Limit: 0.1 ppb

Positive Detections:

Location	River	Sampling Date	Atrazine ppb
Palm Beach Co., FL	Palm Beach Canal	7/11/87	1.3
Buchanan Co., IA	Wapsipinicon R	7/08/87	0.72
McHenry Co., IL	Coon Creek	7/07/87	0.38
Hancock Co., IL	Lamoine R	7/08/87	0.72
Washington Co., IL	Little Crooked Creek	7/13/87	3.5
Lagrange Co., IN	Pigeon R	7/08/87	0.56
Vincennes Co., IN	Wabash R	7/13/87	3.2
Reno Co., KS	Ninnescah R	7/11/87	0.57
Ingham Co., MI	Deer Creek	7/07/87	0.11
Huron Co., MI	Pigeon Creek	7/07/87	0.16
Hilsdale Co., MI	Hog Creek	7/08/87	0.49
Merrick Co., NE	Platte R	7/11/87	2.8
Bartholemew Co., IN	Clifty Creek	7/14/87	2.4
Floyd Co., IN	Little Indian Creek	7/13/87	0.39
Sussex Co., DE	Stockley Branch	7/06/87	1.2
Thomas Co., GA	Ochlockonee R	7/10/87	0.13
Marshall Co., IA	Iowa R	7/08/87	0.16
Des Moines Co., IA	Skunk R	7/08/87	0.67
Warren Co., IA	North R	7/08/87	1.6
St. Landry Co., LA	Bayou Teche R	7/09/87	0.46
Clark Co., OH	Mad River	7/09/87	0.44
Minnehaha Co., SC	Skunk Creek	7/09/87	0.13

In addition, a private well (20 ft. depth) used for irrigation was monitored for atrazine in the summer of 1987 in Freeland, Michigan. The following findings of atrazine were reported:

Date	Atrazine (ppb)
May 1987	3.0
June 1987	4.0
August 1987	2.0

These detections were attributed to atrazine treatment in the summer of 1986 in a field nearby and heavy rainfall in the fall of 1986.

Wells in the vicinity used for drinking are greater than 100 feet in depth and no detections have been cited in these wells.

Sincerely,

Karen Stumpf

Karen Stumpf
Senior Regulatory Specialist
Regulatory Affairs

KS/sh/0207