

RECEIVED  
AUG 5 1982  
RECEIVED

HEALTH COMMITTEE  
SUFFOLK COUNTY LEGISLATURE  
SUBCOMMITTEE ON TEMIK CONTAMINATION

REPORT

August 3, 1982

Members:

Gregory J. Blass

Wayne Prospect

C O N T E N T S

- I Statement of Subcommittee's Purpose and Actions
  - II Historical Outline of Temik Contamination with Subcommittee Observations
  - III Status
  - IV Concessions and Recommendations
  - V Acknowledgements
-

## SUFFOLK COUNTY LEGISLATURE SUBCOMMITTEE ON TEMIK CONTAMINATION

### I. STATEMENT OF SUBCOMMITTEE PURPOSES AND ACTIONS

The Chairman of the Suffolk County Legislature's Health Committee appointed this Subcommittee on Temik Contamination for the purpose of investigating and reporting on the contamination of extensive areas of groundwater in the County from the pesticide Temik. The subcommittee was tasked with submitting specific recommendations to the Health Committee for eventual consideration by the Legislature. These recommendations would be formulated by the subcommittee with a view towards the establishment of Suffolk County's policy on Temik contamination, its causes, and feasible remedial action. Special attention would be directed towards the responsibility of Union Carbide Corporation, Temik's manufacturer, as to the people of Suffolk County, particularly those Suffolk residents who are the victims of Temik contamination. The subcommittee's attention would also be directed to the experiences of homeowners and municipalities affected by groundwater in which traces of Temik have been found. Also of concern to the subcommittee as it embarked on its efforts was the response of the agricultural community to the entire Temik issue.

The subcommittee, consisting of Legislators Gregory J. Blass and Wayne Prospect, conducted three public hearings on the East End; April 29 in the Riverhead County Center, May 6 in East Hampton Town Hall, and May 27 in Southold Town Hall. Local press announcements and radio publicity gave reasonable advance notice of the hearings to the community. Additional notification was attempted through a direct mailing to property-owners whose private wells contained excessive amounts of Temik.

The subcommittee delivered written invitations to representatives of County and State governments, including agencies concerned with pesticide use. A list of all participants at the hearings is appended as Exhibit 1. Copies of each participant's testimony, if submitted to the Subcommittee, is available upon request. The hearings at Riverhead and Southold were well attended, the hearing at East Hampton was not. Nevertheless, all the hearings were informative and quite useful to the Subcommittee's purposes. These hearings, and the input from them, form the basis of much of the recommendations submitted below.

## II. HISTORICAL OUTLINE OF TEMIK CONTAMINATION WITH SUBCOMMITTEE OBSERVATIONS

Temik is Union Carbide's brand name for Aldicarb, a highly toxic pesticide. Technically, aldicarb is a carbamate insecticide and nematicide, labeled for use on potatoes, cotton, peanuts, sugar beets, some ornamental plants and other crops. It is a "broad spectrum" pesticide because it is effective against a large number of pests including aphids, thrips, plant bugs and nematodes. The best description of its properties, an interesting point to be discussed later, can be found in publications by Union Carbide Corporation and the United State Environmental Protection Agency (EPA), both dated in 1975. For an historical outline, perhaps one should begin with a glimpse ever so briefly at a most recent development.

On July 12, 1982, the Suffolk County Health Services Department issued a press release on preliminary findings of its own latest Temik study. The release is quoted in part as follows:

"Preliminary findings indicate that....the frequency of medical and specific neurological conditions associated with pesticide use

and consumption do not show a significant difference among the various groups in relation to the concentration of aldicarb in drinking water. There was, however, a relatively high incidence of spontaneous abortions and neurological disorders among those consuming water with high concentrations of aldicarb."

The Suffolk County Health Services Department study, with the Department of Medicine at Stony Brook University and others, was in the form of 1600 questionnaires mailed to Eastern Long Island households. Because of a low response (321) and lack of medical information on respondents, the Health Commissioner, Dr. David Harris, called the study unreliable. He stated in his release that he would not have discussed the study at all until it is entirely completed, if ever, but felt preliminary findings deserved to be publicly aired, quickly. He justified this in a manner of understatement when he noted that the "interest of County residents" in pesticide contamination of our water was "keen".

The real history of Temik began just after World War II, as the world passively witnessed the surge of the chemical industry. The science of chemistry and the free enterprise system merged quickly and happily at that time, and there is substantial argument that regulation of the industry never truly occurred in the United States until the Nixon Administration. The scope of this report prevents further treatment of this stage of Temik's history; suffice it to say that the regulatory agencies, including EPA and New York's own DEC, up to this very day, seem awestruck by the facilities, employment opportunities, persuasiveness and other powers of the corporate chemical empire.

In 1974, Temik was created in Union Carbide Laboratories following many years of painstaking, costly research. Up until then, Carbide's

aim was to develop a pesticide which would respond to the needs of, among others, potato farmers, whose yields per acre dropped in the devastating wake of infestation by the Colorado potato beetle. Throughout the potato industry, a driving search had been underway to formulate a chemical that would be effective against this pest. The potato beetle was resistant to all the insecticides in use. It grew in strength and number particularly in areas of potato monoculture, such as Long Island. It seems clear at this point that in its research and development of Temik, Union Carbide focused primarily upon destroying insects, and secondarily upon the health and safety consequences of their product. Several times during the Subcommittee's hearings, Carbide representatives acknowledged the shortcomings of its Temik research.

The EPA failed in its regulatory function by certifying Temik for use on Long Island farms. If in no other way, this failure can be identified by EPA's acceptance of research techniques, and conclusions, which Carbide itself has since termed inadequate. It is for this very reason that Suffolk County cannot rely upon EPA to prevent a recurrence of Temik's drastic scenario. Nor can the people look to EPA to assist in correcting a tragedy which EPA fostered. Guilt is but one of the many unfortunate relationships which EPA and the chemical companies share. EPA staff scientists often advance their careers by joining the ranks of the chemical corporations' employees. Moreover, corporate giants like Carbide perform the kind of research which EPA could not hope to duplicate. Consequently, there persists an unhealthy reliance by EPA upon Carbide. Temik's unfortunate history attests to this.

Temik became widely used on Long Island farms by 1976. Available

only in water-soluble, powdered form, applied at the time of planting at about four pounds per acre, Temik gave excellent potato beetle control. Long Island's farmers, frequently the victim of precarious finances, grew to depend on Temik and the higher crop yields which it facilitated.

In the meantime, Long Island soils, with their porous qualities and very limited organic content, absorbed Temik but did little to break it down. The underground well water supplies, particularly the more shallow ones on the East End, began to show traces of Temik, quite by accident in well-water samples that were drawn for other purposes in 1979. More comprehensive testing showed widespread Temik contamination of the aquifer, and Carbide quickly withdrew their ill-fated product from the Long Island market. Temik began to show its leeching strength in groundwater in other parts of the county. No substitute pesticide has yet been found with Temik's same toxic effects. In the meantime, having been the only organization to build a laboratory capacity for Temik, Union Carbide now performs tests on well-water samples in cooperation with the Suffolk County Department of Health Services, and provides a water, carbon-filter system, at a cost of about \$650.00 to property-owners whose wells prove to be contaminated. Carbon filter replenishments, at a cost of \$135.00, must be borne by the homeowner. The Health Services Department has expanded the well-sampling program as of June 1, 1982.

---

### III. STATUS AND PROJECTIONS

The State of New York has set a guideline of seven parts per billion (7 pp b) as the level at which Temik contamination becomes unacceptable.

At least 1400 wells on the East End contain contamination levels above this guideline. Many more contaminated wells are expected. Beyond the provision for carbon filters, and laboratory testing of selected samples, Union Carbide has offered no further compensation for the contamination caused by its product. Little information exists as to the effects on the public health from chronic or acute exposure to Temik. Only Union Carbide possesses the "raw data" containing the detailed records of the research and experimentation it performed on Temik. Carbide has agreed to release this data to a panel of experts which it finds qualified. Carbide has assumed this posture for the protection of its trade secrets. To date, Suffolk County has declined any legal action against Carbide, choosing instead a conciliatory, negotiated route, though of a secretive nature. Carbide has contended in the Subcommittee hearings that Temik contamination will fall to less than 7pp b throughout Long Island by 1987 if not earlier. This conflicts with input from the Health Services Department that Temik contamination would persist in Suffolk's groundwater for at least twenty years.

#### IV. CONCLUSIONS AND RECOMMENDATIONS

1. The most immediate contamination issue relating to Temik concerns the carbon filter provided to property-owners. The Subcommittee concludes that there is not sufficient evidence to establish whether the carbon filter adequately removes Temik from drinking water. The committee recommends:

- A) Updated reserach be conducted by the County or by an independent



contractor to establish carbon-filter effectiveness for Temik.

B) Union Carbide should provide, voluntarily or by legal compulsion, all filter replacements when necessary. By Carbide's own testimony, this will only be required until 1987, or until all Temik contamination ends.

C) Filter systems must be equipped with a meter or other mechanism that will gauge use, in order that consumers will be aware of exactly when filters are spent and in need of replenishment.

D) A comprehensive effort of dissemination of information on how to obtain filters, replenishing them, and properly disposing of spent cartridges, must be undertaken by the County Health Services Department immediately.

2. The subcommittee notes with deepest concern the appalling lack of information available to determine the true health effects of Temik. It is an alarming conclusion that the people of Suffolk County must look to the manufacturer of Temik in order to make this determination. Union Carbide stated on the record of the hearings that it stands ready to make the basic toxicology and environmental chemistry information available for "review by qualified persons".

The subcommittee recommends that these materials be turned over by Union Carbide to the Suffolk County Health Services Commissioner. The Commissioner is then directed to appoint a panel of qualified persons and citizens to perform the necessary evaluation of these Temik research materials. This panel, to be chaired by the Health Services Department of Suffolk County, shall evaluate the environmental fate of Temik, including how much Temik is conveyed by water movement, and how long it persists. Environmental fate should also be explored in terms of public health risk.

This aspect of the panel's review must focus on the significance of movement in wells, the level of exposure, and the toxicological significance and risk to public health and safety from public consumption. Particular attention should be directed at Carbide's claim that Temik contamination will become insignificant by 1987. All these aspects, combined with any suggested by the panel, must be explored simultaneously and in conjunction with database available from the New York State Health Department. As an impartial, investigative group, this panel should be provided with an expense account by the County, and with facilities as and if available. The report of this panel must be completed at the earliest possible time, and submitted to the County Legislature.

3. The subcommittee finds that Suffolk County's own Health Centers, as well as local physicians, hospitals and private health institutions, have little or no information on exposure to pesticides. The County's Health Services Department shall be directed to communicate with all health care providers on the subject of chronic and acute exposure to pesticide-contaminated drinking water. Up till now, such interface has been non-existent. This situation must be corrected at once. Health care alerts, advisories and assistance must be established and continued on a regular basis.

4. As a matter of State and Local law, all sales tax should be removed from bottled water. The County Legislature should also press its position, as expressed in a recent petitioning resolution to the New York State Legislature, that all bottled water labels clearly indicate the water's place of origin and chemical content.

5. The well-testing program on which Suffolk County Health Services

has embarked last June 1st will reach a volume of about 100 wells per week. This volume is, in the subcommittee's view, unsatisfactory. The Department is directed to submit an updated budget request for expansion of this program to levels that recognize the gravity of the Temik contamination issue. Strictly for the purpose of guidance, the subcommittee recommends a sample/testing program of at least 200 wells per week with direct mail contact to all affected citizens. Legislative and Executive support of such a Departmental request is encouraged in the interests of public health and safety. The cooperation of Union Carbide in such an expanded program will be expected.

The Temik contamination will necessitate Suffolk County monitoring and testing wells for decades to come. Therefore, Union Carbide must assume the responsibility of reimbursing Suffolk County for all expenses relative to this testing and monitoring responsibility insofar as it relates to those extraordinary efforts which were undertaken by the County which are directly related to Temik. Failure to reach an acceptable agreement with Union Carbide, the subcommittee recommends that Suffolk County initiate a lawsuit against Union Carbide for damages suffered by the taxpayers due to Temik contamination.

6. Temik contamination in Suffolk County cannot properly be addressed only by corrective measures which are barely adequate, such as filtration and bottled water. The subcommittee has determined that preventive measures will be crucial to the future of Long Island's drinking water supply. The following measures are recommended with the utmost urgency:

A) Research - agricultural practices less dependent on pesticides and herbicides, but economically attractive to Long Island farmers, must

be developed. In anticipation of this need, members of the subcommittee have already sponsored legislation, that has since been adopted and included in the Suffolk County Capital Budget for 1983. These budget items will finance research into crop rotation (as a natural departure from monoculture), integrated pest management (e.g. the detoxification of farm fields after chemical sprays have performed their pesticide function but before they have leached into the groundwater) and double cropping (examining different crops that can be grown subsequent to one another in one farm in one season).

B) Pre-testing of all pesticides and other chemical agents on Long Island must be part of the national and State certification of these products. Up till now, by Carbide's own admission, this process failed at least insofar as Temik is concerned. Long Island's unique soil characteristics plays a more critical role in Eastern Long Island, where groundwater wells are drilled very close to the ground surface. Suffolk County is urged to prevail upon Union Carbide Corporation to make substantial contributions to this inclusion of Long Island testing in certification procedures, regardless of the manufacturer involved. Specifically, the subcommittee recommends that Union Carbide donate laboratory equipment to the Suffolk County Health Services Department. A foundation established by Carbide might serve as the funding vehicle for this effort. Although the cost of this donation would be high, it would satisfy a moral obligation which the subcommittee feels that Carbide owes to the people of Suffolk County. If this laboratory capacity is ~~incorporated into the County's facilities, then national certification can~~ include local certification here in Suffolk County. The two processes could be simultaneous, to avoid added delays in approval of chemical products for agricultural or home use.

C) To prevent future occurrences in Suffolk County, the subcommittee recommends that the Suffolk County Legislature enact a local law requiring that all pesticides introduced to Suffolk County must first be tested under Suffolk County soil conditions. This local law shall provide for a mechanism of cooperation with State and Federal agencies. In this way, the pesticide certification process on the County level will be simultaneous to the certification process on other levels. The laboratory capacity contemplated in Part B (above) will facilitate the implementation of this local law.

D) Tax Incentive - must be considered by the Suffolk County Legislature as an award to those farmers whose operations do not rely on chemical practices which have adverse effects on the drinking water supply. The standards to be applied to such a tax incentive program can be formulated by the Health Services Department.

7. The subcommittee regards the practice of blending good drinking water with Temik contaminated water with the utmost reservation. This blending practice is underway in the Town of Southampton with the blessing of the Suffolk County Health Services Department and the assistance of the Suffolk County Water Authority. In view of the many questions relating to the health effects of Temik which remain disturbingly unanswered, the subcommittee insists that this practice be discontinued immediately as a matter of public health and safety.

8. The subcommittee finally recommends that the research project involving health effects of Temik upon pregnant women which has been undertaken by the Health Services Department, and which indicates a possible link between Temik and spontaneous abortions, should be pursued with all diligence. It is recommended that the Union Carbide Corporation assist in this regard, and that legislative budget be provided on an emergency basis.

EXHIBIT 1

\*denotes April 29

+denotes May 6

°denotes May 27

*Herbert Davids -	Suffolk County Health Services Department	
*°Dennis Moran -	225 Rabro Drive East	
*Mahfouz Zaki -	Hauppauge, NY 11788	
+Joseph Baier -		
*Larry Penny -	Peconic Environmental Resource Center	
	Main Street, P.O. Box 988	
	Sag Harbor, NY 11963	
*R.C. Back -	5021 Trail Ridge Drive, Raleigh, NC	} Union Carbide Corp.
*Dr. Ronald Baron	3208 Caldwell Drive, Raleigh, NC	
°J.R. McWhirter -	Danbury, Connecticut	
+William Kent -	Suffolk County Attorney's Office	
*Rich Hanley -	Town of Riverhead	
*Daniel Fricke -	Cooperative Extension	
+Dale Moyer -	246 Griffing Avenue	
°William Sanok -	Riverhead, NY 11901	
*+°Dan Wartenberg -	SUNY at Stony Brook	
*Ted Goldfarb -	SUNY at Stony Brook	
*+°Carolyn Zenk -	Group for the South Fork	
*Raymond McKay -	Main Road, Aquebogue	
*Patricia Carr -	Twomey Avenue, Calverton	
*Stephen Carpenter	Sound Avenue, Calverton	
*Dr. Jeanne Yermakoff	59 Hawthorne Road, Rocky Point	
*George Schmelzer	River Road, Calverton	
*Joseph Sieczka	Box 99D, Mattituck (Cornell University)	
*Roary O'Rourke -	Mattituck, NY	
*Valerie Scopaz-Shaw	Mattituck, NY	
°+James M. Pike	P.O. Box 429, East Quogue	
°Herman Lieblein	P.O. Box 581, Southold	
°Paul M. Berg -	Wells Road, Peconic	
°John Agria -	Wells Road, Peconic	
*°Paul Stoutenburgh	Cutchogue, NY	
°Alexander Goldowsky	23 Culver Hill, Southampton	
°Cynthia Schwartz	P.O. Box 513, Water Mill	
°Nancy Drozd	Georgian Lane, Water Mill	
°Frank Bear	375 Wampum Way, Southold	
°Joseph Corso	Box 80, Mattituck	
°John Krivacoy	Box 18, 5915 Peconic Bay Boulevard, Mattituck	
°Andrea Aurichio	New York Times, North Road, Southold	
°John Lee		
°Shirley Bachrach	League of Women Voters, Southold	
°Larry Murdock	Southold Town Board	