

Done 3/5/84 CC: DHG - looks ok to me, - but hate word - this article was killed by our Law Dept. Conf from T. Sprick 3/2/84

UNION CARBIDE CORPORATION
Union Carbide WORLD

Old Ridgebury Road
Danbury, CT 06817

MEMORANDUM

file: Brain Tumors
RECEIVED

TO: Foley Provenzano
Plant Manager
Texas City

Feb. 13, 1984

FEB 13 1984

FSP

FROM: Tomm Sprick
UC World
C-2211

SUBJECT: World Article

I understand, Foley...

that you and Susan Austin have discussed the attached World article, but for your information I am sending you a copy. Thanks for your cooperation with this item.

cc: M. Herman
0394s-6

UCC 097564

APPROVALS

/x/S. Austin /x/D. Liebeskind--SUI /x/F. Provenzano-Tex.
/x/R. Schwindt-Employee Rel. /x/T. Collins--ETS, Clear Lake/ /
/x/C. Hoffman-Industrial Rel./x/G. Merryman--Ag Prod., RTP / /

PUBLICATION: UC World	DEADLINE:	ILLUSTRATION:
Issue: March/April	Writer: Sprick	Photo:
Subject: Epidemiology	Draft #: 3	Caption:
Date: Feb. 7, 1984'	Page #: 5	Attached:
		Not Attached:

0394s

/bf flush left/Medical Detectives: On the Trail of Health Problems/med/

Susan Austin is a detective...but won't be found wearing a deerstalker or cape, smoking a pipe, or tip-toeing down a dimly-lit alley on the heels of some villianeous criminal.

She is also a doctor...but doesn't wear a white lab coat, carry a stethoscope or draw blood samples.

Austin is a Union Carbide epidemiologist -- a "medical detective" who examines health data throughout the entire corporation; studies the distribution of health problems; and, if any above normal percentages are found, works with other UCC professionals to determine the causes.

Begun in 1977, UCC's epidemiology program can act as an "early warning system," providing employees with some assurance that potential health hazards in the workplace will be identified before they erupt into full-blown problems. "Realizing its social responsibility, Union Carbide has committed the people and funds to a health program that helps to insure the well-being of employees," explains Dr. Austin, corporate director of epidemiology, who holds a Ph.D. in public health.

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/bf, flush left, all caps/PROBLEMS CAN OCCUR DECADES LATER/med/

At the turn of the century, infectious diseases such as cholera, typhoid, smallpox, polio and tuberculosis claimed untold numbers of lives. Thanks in large part to the development of antibiotics and vaccines, these diseases have been effectively controlled and, in some cases, eliminated. The emphasis in medical research has now switched to finding the causes of other life-threatening conditions that typically occur later in life, such as heart disease and cancer.

One major problem with identifying work hazards that may eventually cause health problems is the "latency period;" that is, many years may elapse between the time of exposure, and the time chronic disease is detected.

"In asbestos-related cancer cases, for example, the latency period varies from 15-to-40 years after exposure to the material," continues Dr. Austin. "However, if studies can be designed to detect long-range health effects traceable to harmful materials/substances, steps can be taken to reduce or eliminate long-term problems. Incidences of asbestos-related cancer have declined significantly among employees in asbestos-related industries since the introduction of protective equipment.

"Such cases show we have to go beyond reviewing health profiles of only current employees if we are going to catch potentially harmful conditions," says Dr. Austin.

As to whether the work environment or individual's lifestyle have greater impact on a person's health, most experts agree with the findings of a recent special study by Oxford University, which demonstrates that the "way we live -- what we eat and drink, whether we smoke -- has far more to do with cancer causation than workplace exposure." The study concluded that, historically,

no more than five percent of cancer among Americans is the result of workplace exposure [a percentage that included numerous asbestos victims].

"Enhancing the quality of life is a team effort," continues Dr. Austin. "Individuals can take steps to improve their lifestyle, while epidemiologists -- working with doctors, engineers, statisticians and other professionals -- determine the effects environmental surroundings have on people and suggest ways to eliminate harmful aspects. That's where our epidemiological program plays a vital role."

Carbide's Epidemiology Department terms its efforts a "surveillance program" -- not a "mortality study" -- because the emphasis is to seek clues to potential health problems, rather than on proving a hazard is present. More precisely, the studies review health profiles of current and former employees at plants to see if any above normal rates of health problems exist. The figures of one UCC site then may also be compared with other sites, or the general U.S. population. "All this work," says Dr. Austin, "is aimed at one goal -- does a potential problem exist and is a more in-depth investigation needed?"

/bf, flush left, all caps/ SEVERAL UCC STUDIES CONDUCTED/med/

One of the corporation's current and largest epidemiological studies is under way at the South Charleston, Institute and Technical Center locations in West Virginia, where health histories of 40,000 current and former employees are being examined. Carbide undertook this in-depth examination with the National Institute for Occupational Safety and Health (NIOSH) after a preliminary study conducted by the School of Public Health at the University of Pittsburgh suggested the possibility of an abnormal number of certain types of health problems.

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"Since the initial data sample was extremely small and incomplete, we decided to initiate a full-scale study to determine its significance and whether or not it was related to the work environment," says Dr. Austin. With computers, Carbide is examining tremendous volumes of information that span decades, such as how long people were employed, where they worked, to what chemicals or materials they were exposed, where and how long they may have lived in a particular area and, if they have died, what the cause was.

In the northeast U.S., another corporate epidemiological study is under way involving 14,000 employees who have worked at the Linde Division plant in Tonawanda, N.Y., between 1940 and 1981. While the Epidemiology Department was working with Linde in 1980 to set up a division-wide surveillance program, data at the plant indicated a larger number of deaths due to colon cancer among former employees than would have been anticipated based on national population rates.

"However, the statistics did not take into account geographical differences," notes Dr. Austin. "When we compared the mortality experience of former employees to that of New York State residents in particular, the significant excess disappeared.

As the data base enlarges, Dr. Austin is confident the study results will become more valid. "We continue to monitor the situation and current results show there is not a significant elevation of colon cancer deaths among former employees. Apparently, the colon cancers aren't the result of any occupational exposure, but perhaps other, personal or environmental factors."

Results of both the South Charleston and Tonawanda studies are expected by the end of this year.

A third program undertaken by the corporation, together with NIOSH, was begun in 1979 at Texas City after an employee report and a site health profile found what was thought to be an excessive number of brain tumor cases. After

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a two-year examination of the records of more than 6,500 employees who had worked at the site since its opening in 1941, Earbide's epidemiologists determined that although an elevated rate was found, no correlation existed between brain cancer and employee exposure to chemicals used or manufactured at the facility.

"Though our programs are certainly not foolproof, they provide tangible evidence we're doing everything possible to anticipate and prevent major problems," concludes Dr. Austin. "Tracking current and former employees is a formidable job, and as we gather more data over time, the information derived from these studies will become more and more conclusive. The few pilot studies completed indicate we're on the way toward achieving an effective, on-going program."