

Dragon, Karen E. (CDC/NIOSH/EID)

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From:

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Subject: 103 - Endicott Project Comments

submit these comments in my capacity as a public citizen. However, I bring a unique background to these comments.

From 3 to , I was employed by the Division of the United States Environmental Protection Agency, Region , in which Region the IBM Endicott campus is located. Endicott is where the 28,000 unique individual employees to be studied in the NIOSH study principally resided, with many only short distances from the plant itself.

I was Associate for from , in charge, among other things, of the Superfund program's implementation in New York State. In I entered the private practice of law. For the following years, human chemical exposure law was one of my specialties. For the past years, I have been environmental to a major national law firm with eight offices on the East Coast of the United States.

The other perspective I bring to these comments is that for the past years, I and a group of physicians, medical researchers, epidemiologists, and attorneys have been working with a group of nearly 1000 persons residing in the Endicott area who are seeking compensation due to effects on them of IBM contamination of the area immediately adjacent to the Endicott plant campus. Their properties are currently underlain by an approximately 400 acre plume of principally TCE, along with some PCE and Freon, virtually all of which plume results, in its present location, from leaks and spills by IBM of in excess of 100,000 gallons of TCE over a period of decades of inappropriate conduct.

For the most part, those persons we represent are not former workers. However, a number of our clients were employed at the IBM campus for periods shorter than a career in circuit board manufacturing, some times for a year or several years only, before moving on to other employment. Some were part time or seasonal workers, while others were employees of contractors who provided in-plant workers to IBM

During the past years, we have not only gathered the voluminous medical records of over 100 residents, many with cancers characteristic of TCE solvent exposure (cancers of kidney, liver, testicles, breast, colon, non-Hodgkins and other lymphomas, etc.), but we have observed recurring coronary birth defects in infants born following mother's in utero exposure to in-home vapors and/or contaminated ambient air immediately downwind of the buildings in which IBM wet processes were performed and from which what passed for ventilation systems operated around the clock.

Most interesting has been the anecdotal information we have gained through many months of interviews, including interviews of IBM employees and contractors. We have been told of incredible mortality decimation, following the 1970s, of particular cohorts whose employment was related to the IBM wet processes. Cohorts such as these could possibly be identified from the work history files.

We were often told that despite employee classification by "departments" within IBM, the printed circuit board (PCBD) operations involving wet processes exposed employees who were not directly categorizable as wet process employees to substantial amounts of solvent inhalation. The transit through non-process employee areas of mobile carts holding components "in process" was apparently substantial; the anecdotal information acquired describes moving carts in which work was moved from one fabrication process to another. Work removed from solvent immersion and from which tank solvents had not yet "evaporated," and whose surfaces were neither drained nor evacuated to the exterior through ventilators or hoods would routinely encounter other IBM workers, assigned to non-manufacturing job categories, by the thousands. The bottom line is that exposure to VOCs was much more widespread through the employee population than might be realized by equating employees by their "given" job description.

The only manner in which solvent exposure and health outcomes can be reliably related at the end of this forthcoming study is by augmentation of data gathered through year end, hard copy, and work history file data with intensive interviews of a reasonable sampling of the studied cohort through the entire time period to be

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studied. Upward of 1,500 interviews may be necessary for NIOSH to gather a true understanding of how (at what concentration levels in workplace ambient air) the employees were exposed, where they were exposed, and what they were exposed to. Moreover, employee interviews will also be telling with respect to understanding how employee health issues were reflected in IBM personnel records for the small amount of industrial hygiene that was practiced on this IBM campus.

It needs to be stressed that certain amounts of dermal absorption occurred as well, and the precautions, or lack thereof, followed or ignored will also be important in assessing contamination. Employee interviews can additionally highlight what safety precautions, if any, had been introduced to the employees by the IBM management, and during what years those improvements were introduced.

Generally, NIOSH should be cautioned to demand evidence that exposures to non-critical wet-process personnel were de minimis before adopting such assumptions in making qualitative or quantitative exposures. As to the latter, description of the size of such equipment and the dimensions of its evaporative interface to ambient workplace air would be both significant and feasible data to collect.

Due to the employment of manual labor of employees in physically moving circuit board and circuit board assembly racks between departments and operations, a round the clock movement of work, with materials moving from one solvent washing operation to another, became omnipresent.

To the extent that personnel records contain annotations allowing identification of complaining employees (lines 286-288 of the assessment summary, page 7), those employees who stood up in the past against a contaminated future, to the extent still living, would be ideal sources to describe to the NIOSH reviewers what the physical relations were between employees and solvent.

Also, it would not be surprising if the Assessment Report (page 13, lines 474-475) was not totally correct in estimating the lack of scientific feasibility in development of quantitative estimates of exposure for former employees.

With the advent of the internet, finding interview sources should be much simpler than in the past, since there are likely to be retirement chatrooms, bulletin boards, and blogs in which retirees and non-retirees alike are participants.

In short, NIOSH is about to embark on an extremely important, enterprising study of a cohort that had the misfortune to be exposed willy-nilly to massive amounts of solvents, with little concern by management of what future health consequences would be. Much cancer is seen among the community, and for those who both worked there and lived near the plant, one's workplace exposure was a round the clock experience. In a significant manufacturing sector such as IBM pioneered in Endicott in the 1960s, the contemplated NIOSH study is long overdue.