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January 16, 1975

Mr. Anton Vittone
President
B. F. Goodrich Chemical Company
6100 Oak Tree Boulevard
Cleveland, Ohio 44131

Re: Oil, Chemical and Atomic Workers Union International v. Occupational Safety and Health Administration, United States Court of Appeals for the District of Columbia Circuit, Case No. 74-2071

Dear Tony:

The primary purpose of this letter is to help everyone on the VCM and PVC Resin Producers Committee keep their files up to date by letting them know that Firestone and Union Carbide have now filed two Motions in the referenced proceeding. The companies have jointly filed for Leave to Intervene and also for dismissal of the Petition for Review filed by the Oil, Chemical and Atomic Workers Union International.

We are not enclosing copies of the pleadings since we believe that attorneys for most of the companies have already been served with the same. On the other hand, if anyone requires a copy, we do have the documents in our files. We might also venture to guess that the Motion for Leave to Intervene will certainly be granted, just as those we and Tenneco-Air Products filed were granted earlier.

While writing to report to you on this matter, we thought it might be worthwhile to bring to everyone's attention an article entitled "Arsenic Industry and Cancer" which appeared in the much read Outlook section of last Sunday's Washington Post. Since we cannot determine whether this article has been syndicated or not, it occurred to us that forwarding copies might be worthwhile.

PRIVILEGED AND CONFIDENTIAL

The article does not deal directly with VCM, of course, although it certainly illustrates once again the fact that we can now expect to see vinyl chloride mentioned in any article relating to a major industrial health hazard (see paragraph four of the reproduction).

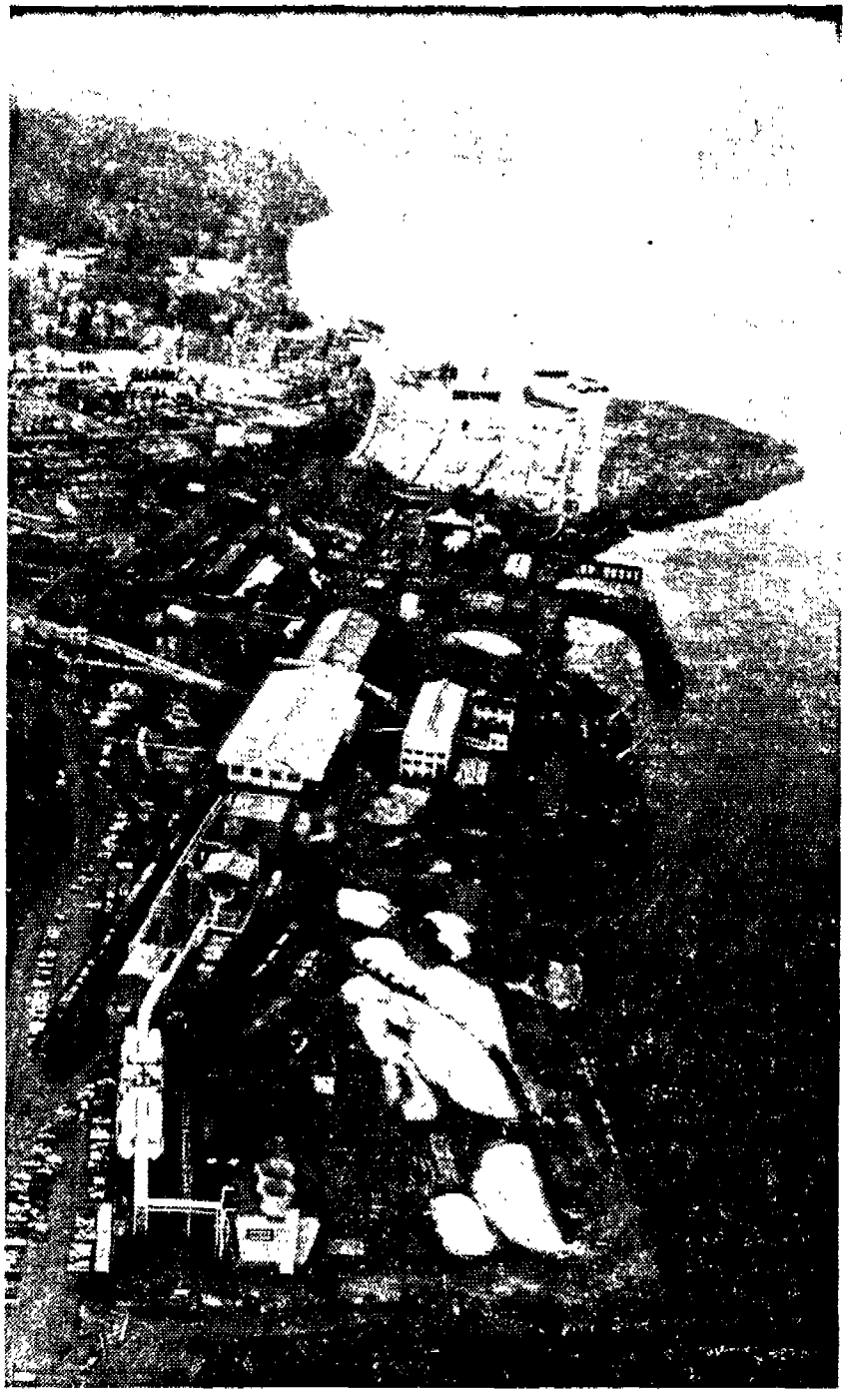
You may be more interested in noting the quote in the next to last paragraph of the article. If Mr. Foster's comments are accurately recorded as we are almost certain they are, we would only hope that the Panel in the Second Circuit which is working on the opinion in our case has occasion to read the Post carefully. If it does, it will see that OSHA spokesmen are emphasizing their responsibility to direct their careful attention to feasibility while taking the position in the VCM case that a Standard conceded to be essentially infeasible to accomplish should be promulgated.

Cordially yours,

Jerome H. Heckman

Enclosure

cc: VCM/PVC Resin Producers Committee
VCM/PVC Lawyers' Subcommittee



American Smelting and Refining Company photo

All processing of arsenic in the United States is done at the Tacoma plant of the American Smelting and Refining Company.

Arsenic, Industry And Cancer

By Bill Richards and Rachel Scott

Richards is a Washington Post metropolitan staff writer. Scott, whose book, "Muscle and Blood," was published last year, is director of health and safety for the Illinois Industrial Commission.

ARSENIC has gained a certain notoriety over the years as a parlor room poison—death by the teacup, administered by smiling spinsters seeking to polish off their victims in as gracious a manner as possible. But there is nothing gracious in the deadly evidence beginning to emerge, far from the lace and the china teacups, that arsenic causes cancer and that a million or more American workers may be unwittingly putting their lives on the line through daily exposure to the chemical on the job.

Concern began growing last summer when two of the chemical industry's giants—the Dow Chemical Company and the Allied Chemical Corporation—admitted in an unusual display of corporate candor that workers who once handled inorganic arsenic at their Midland, Mich., and Baltimore pesticide plants were dying of lung and lymph cancer at an alarming rate.

Allied reported that among workers retired from its Race Street plant in Baltimore lung cancer was seven times that of other males in the city and lymph cancer rates were six times higher than expected. Dow's separate study at its now-closed Midland plant revealed a 32.9 per cent cancer rate among workers exposed to inorganic arsenic in the 1950s.

While the numbers covered by the studies are relatively small the implications for industry are enormous. Some federal health experts now concede that the inorganic arsenic menace may be as substantial in the workplace as that posed by the more widely publicized vinyl chloride cancer connection discovered a year ago.

Inorganic arsenic is a byproduct of the smelting process. Some 15 copper, lead and zinc smelters ship it to the lone processor in the United States, the Tacoma, Wash., plant owned by the American Smelting and Refining Company (ASARCO). Arsenic trioxide, an inorganic arsenic compound that is the most widely used form of the chemical, shows up in at least 44 different major industries by a federal count, from tinting windshields in Toledo to spraying roses in Texas. The United Steelworkers Union alone estimates that 40,000 or more of its workers may be exposed. Federal estimates of exposed workers run to 1.5 million.

While there are substitutes for arsenic in some secondary industries the most seriously exposed workers—in copper and lead smelters where inorganic arsenic is a major byproduct of the smelting process—are virtually condemned to further exposure, if industry spokesmen are to be believed.

In pleas to federal regulatory officials to keep the present exposure standards—which were in effect for Allied workers—the metal smelting industry claimed any change at this point would be economically disastrous.

Missed Signals

IT IS HARDLY any secret that arsenic can cause cancer. The first suggestion that it might be a carcinogen was raised in 1820. But the Allied and Dow disclosures pose the cardinal question—why were workers exposed to hazardous amounts of arsenic in the first place?

Norman Herington, a spokesman for Allied Chemical, recently supplied one answer. "I'm sorry to tell you," he said, "that until 1973 we didn't have any suspicions that the conditions existing at (Allied's Baltimore plant) were causing cancer." According to Herington, "none of the manufacturers who were making arsenical compounds had any indications" there were cancer problems associated with inorganic arsenic.

Curiously, Allied, Dow, ASARCO and the other manufacturers, with billions of dollars in resources and stables of researchers, apparently managed to miss, or ignored, some disturbing warning signs—reports stretching back to the 1930s linking arsenic with several types of cancers.

"This isn't something new that is just bursting out," Dr. J. William Lloyd, a biostatistician for the National Institute for Occupational Satety and Health, said recently. The reason the companies missed the warning signs, said Lloyd, was because "nobody was looking. Sometimes because they didn't want to look, and sometimes because they didn't think to look."

A few of the missed signals included:

- Reports dating back to the 1930s of suspiciously high skin cancer rates among persons who had inorganic arsenic compounds prescribed for skin ailments. One study in 1966 noted that 21 skin cancers were observed among 180 patients who used inorganic arsenic preparations.
- Findings by British researchers in 1948 that high lung and skin cancer rates were turning up among factory workers involved in the manufacture of sheep dip, containing inorganic arsenic.
- A 1959 study of workers at an English nickel refinery, where ores contained a high arsenic content, showing 45 cases of lung cancer and two of skin cancer over a decade.
- A study in 1969 by Drs. Frederick P. Lee and Joseph F. Fraumeni, of the National Cancer Institute, of 8,047 American metal smelter workers. The workers showed a threefold excess of respiratory cancer mortality and, when they were heavily exposed for long periods to inorganic arsenic, as much as eight times the expected mortality rate.

Basis for Standards

THE CORNERSTONE study, however, accepted until recently as indisputable evidence on the potency of arsenic and used as the basis for the present arsenic exposure standards, was done by Dr. Sherman Pinto in 1963. Pinto's research team studied 229 deaths among copper smelter workers exposed to .5 milligrams of inorganic arsenic per cubic meter of air at ASARCO's Tacoma plant—the current federal exposure standard—and compared them to other workers at the smelter who he claimed were not exposed. He discovered almost no difference between the two groups and concluded that chronic exposure to arsenic did not cause excess amounts of respiratory cancer.

Industry quickly pounced on the study done by Pinto—who was then medical director of the same ASARCO plant in Tacoma—disregarding the contrary evidence.

Worse still, Pinto's findings became the basis for the present federal standards for inorganic arsenic exposure after they were accepted by the American Conference of Governmental Industrial Hygienists (ACGIH), a quasi-official body which, until 1970, was the only organization setting standards for toxic dusts and fumes in the workplace.

The ACGIH standards were incorporated into the old federal Walsh-Healey Act, which regulated working conditions for plants operating under federal contracts, and were adopted by the states in their regulations as well. With the passage of the Occupational Safety and Health Act of 1970, the Pinto-based standards were again called upon.

Despite the reliance on Pinto's data by the ACGIH and later the Occupational Safety and Health Administration (OSHA), which adopted the current federal arsenic standards, a number of federal investigators are now convinced that the Pinto findings are seriously flawed.

As early as 1969, Lee and Fraumeni pointed out in their study that Pinto's conclusions compared exposed and non-exposed smelter workers but neglected one critically additional step—Pinto failed to compare his two worker groups with others outside the

plant. The two researchers noted that while Pinto seemed correct in saying there was little difference between cancer levels inside the smelter, the plant population as a whole showed lung cancer rates as much as three times the general population.

Pinto, contacted last week by The Washington Post, acknowledged that no comparision had been made in his study with people outside the plant. "The criticism has been raised about non-exposed people," he said. "I don't believe it too much. I don't pay much attention to it."

ASARCO Assurances

AT THE LATEST round of federal hearings last September to explore new exposure standards for inorganic arsenic, ASARCO showed up as the major arsenic industry witness, with a panel of experts including Pinto, now a semi-retired consultant to the giant smelting company. Prudently, Pinto kept in the background and let ASARCO's other spokesmen assure the federal representatives that there was little cause for alarm and certainly no reason to tighten up the prevailing standards.

ASARCO once again hauled out the original Pinto study, saying that the findings, and an update also done by Pinto, indicated there did not seem to be any increased mortality from arsenic exposure among the Tacoma smelter workers. With this, ASARCO called for retaining the current exposure standard and suggested an independent study of the findings of their colleagues at Dow and Allied.

What they neglected to mention was that in addition to the heavy criticism of the original Pinto study the update was attacked last year by Dr. Samuel Milham Jr., a chronic disease epidemiologist for the Washington State Health Department, for its lax handling of statistics.

Milham pointed out that Pinto neglected to include in his study of smelter workers the secondary cause of death listed on death certificates. If a worker had pneumonia on his death certificate as the primary cause of death Pinto listed that—and skipped the notation that the man also had lung cancer. "We found that he missed 25 per cent of the lung cancers at a conservative estimate," Milham said. In fact, instead of the 18 lung cancers predicted by standard mortality tables for Pierce County, Wash., smelter workers, Milham discovered 40.

Asked about Milham's findings, Pinto said, "In my own mind I'm quite sure that my material is accurate." Nevertheless, he said he had turned over all the material he had on deaths to Dr. Philip Enterline, professor of epidemiology at the University of Pittsburgh, for an "outside" analysis.

"The criticism has been raised that I'm not a professional codifier so now the information is in the hands of a professional. He's a highly regarded expert in his field and I think industry is doing the right thing when they get an unbiased opinion like his."

Enterline, Pinto noted, received a contract seven years ago from ASARCO to do consulting research for the company. The choice of the Pittsburgh researcher this time was suggested, according to Pinto, by ASARCO's vice president, Kenneth Nelson. It was Nelson who testified at the OSHA hearing last fall for ASARCO in defense of Pinto's earlier findings.

Nelson told the OSHA investigators at the hearing that a decision to cut back on exposure levels among its workers could be financially ruinous for the company and later said it could force the shutdown of lead and copper smelters throughout the West.

"There is absolutely no conflict of interest (in the choice of Enterline)," Pinto said last week. "He would be the first to tell me if I were wrong."

The "22 Milestones"

WHAT HAPPENS now concerning arsenic is up to OSHA, but the preliminary indications are not encouraging. In an interim report following the hearing the National Institute for Occupational Safety and Health, OSHA's own research arm, flatly declared that inorganic arsenic is a carcinogen and "any exposure to inorganic arsenic in excess of background levels should be considered an unacceptable risk" until new data are available.

OSHA dutifully accepted their comments, filed them away, and embarked on what is known in the agency as the "22 milestones"—the steps it must take before setting out a permanent standard for arsenic exposure. Among those steps is the consideration of relevant research data on arsenic. OSHA staffers handling the project acknowledged recently that high up on the list of research still considered "significant" are the two Pinto studies.

Moreoever, there appear to be strong indications that OSHA may end up compromising the safety of workers exposed to inorganic arsenic for the economics of the chemical and smelting industry.

"Whatever we do must be feasible, regardless of what NIOSH recommends," James Foster, a spokesman for OSHA, explained recently. "NIOSH specifically deals with the scientific, medical and technical aspects of this. On the other hand it's our job to look at what this is going to cost industry as well as those other things."

No matter what OSHA decides to do, traveling the 22 milestones is certain to take the agency far into 1975 before any tougher standard is set to protect workers from a known carcinogen. And almost certainly the process will involve another public hearing and yet another appearance of Dr. Sherman Pinto and his arsenic study.