

## APPEAL NO. 991264

This appeal arises pursuant to the 1989 Texas Workers' Compensation Act, TEX. LAB. CODE ANN. § 401.001 *et seq.* (1989 Act). On May 25, 1999, a hearing was held. He (hearing officer) determined that the appellant (claimant) has an elevated level of lead in his body, but he did not show that he incurred lead poisoning in the course and scope of employment, that he did not sustain an occupational disease, and that the alleged occupational disease is not a producing cause of the neurological deficits and loss of memory; the hearing officer also found that the respondent (carrier) timely disputed the compensability of the allegation. Claimant asserts that his work was the "only possible source" of his exposure to lead and chromium, that his neurological and memory problems were within reasonable medical probability related to his metal poisoning, that medical evidence proved his case and no medical evidence was submitted to the contrary, that testimony of a chemist and engineer were discredited, and that the decision should not be rubber-stamped by the Appeals Panel. Carrier appealed the findings of fact that said claimant's body has an elevated level of lead and that claimant's neurological and memory problems are related to lead poisoning; carrier replied that the conclusions of law and the decision should be affirmed.

### DECISION

We affirm.

Claimant worked for (employer) since 1981. He testified that in 1996 he began having problems with erectile dysfunction; he also testified that his memory has become impaired. Claimant testified that his work involves the coating of various pipe with chrome on the inside of the pipe. He described vats in which the pipe is placed with a lead anode, which is consumed in the process. Some type of chromium flakes are placed in the tank also. Claimant described the vats in which the pipes are placed as being very deep, 30 to 60 feet deep, to hold the pipe. He said that when the process is started, fumes are produced. He said that for 18 years he has done the same job in the "chrome shop." He agreed on cross-examination that for 15 years he had worked for employer, he had done the same basic task working with the same solution, and he did not have any dysfunction or memory problem until 1996. He had said on direct examination that there is a "blower," but it does not "suction all these fumes out," adding that the blower had recently been replaced.

Claimant also stated that he has had nosebleeds, sinus problems, headaches, blurred vision, and numb extremities. He added that various equipment such as computers and the exhaust system show the effects of the fumes. He added that the exhaust system has been changed. Claimant also agreed that he has been treated for gonorrhea twice and chlamydia once. He was born in 1962.

Claimant testified that he has not lost time from work.

Claimant first sought medical care with the Clinic, where employer sends personnel to be tested for "our chrome annual," and in 1998 began seeing Dr. R at the Environmental Health Clinic in (city 1). Claimant said that when he reported his problem, his employer told him it was his well water. He said he had his well water tested and it was "okay." (In regard to the sample of water he took, claimant said he let the water "run for a while" and then filled the container he was provided.) He said that Dr. R tested him for exposure to metals and wrote a letter to employer in February 1999, after which the employer moved his worksite.

Dr. R wrote to claimant's lawyer on February 19, 1999, saying that his initial impression was allergic rhinosinusitis; exposure to possible chromic acid vapors at work; reported impotence, possibly chemically induced; and acid burns to his skin. He said that testing showed chromium to be 1.2 micrograms per liter (with a range of 1.4 or less) and lead shown to be .2269 mcg/g (with a range of up to .09 mcg/g). Dr. R added that the lead level was higher than 95 to 99 percent of the population. Levels set forth by hair were also quoted. He added that claimant's water test showed lead to be 3.3 ug/L which he said was "suitable for drinking." Dr. R said that claimant had been seen by Dr. K for a neurological assessment and that, based on laboratory and historical evidence, claimant has sustained an occupational injury. (Dr. K said that claimant's water has been tested and "found to be safe. The implication is that his exposure is in the workplace . . .") Dr. R further said that within reasonable medical probability the injury was from exposure to lead and other metals in the course of his work, adding that lead injures the peripheral nervous system. He said that "chronic lead toxicity" can have a number of effects, including "depression, loss of libido, impotence . . ." He then said that in recent years lead has been shown to "cause toxic injury at levels of exposure that used to be thought harmless." A 1994 textbook was referenced. Dr. R also wrote on February 25, 1999, that claimant should be removed "from the apparent source of the lead"; he did not indicate that removal was necessary in regard to any other metal in this letter, but did refer to "lead contamination" elsewhere in the February 25, 1999, letter.

Mr. C testified that he is related to claimant, and that in the last few years, claimant "all of a sudden" became forgetful. For the carrier Mr. G and Mr. L testified. Mr. G is an electrical engineer and Mr. L is a chemist; both have master's degrees. Mr. G said that he was asked to look at the environmental air conditions in the plant, "quality, the measurement of circulation in draft systems." He worked with Mr. L and he said that no one altered or suggested alternatives to the proposed scope of work which he and Mr. L carried out in a way that was "professionally and scientifically correct." He said he saw no indication that the blower had been changed in about 1994. He said two things were significant to him; there has not been a system of ductwork installed that "has not been credibly engineered by an outside specialized engineering firm" (there is no "in-house" type "erector set" system), and the system he saw was a "highly engineered system." He did say that the system was first built with galvanized metal ductwork (1978) that "rotted out" and was later changed to PVC and then to heavy steel. He added that there is a high tech demister (a treatment device) whose performance is consistent with that of the blower. He

said that the records of the system show that "there has never been a time when it had not had the well engineered ductwork system married with a proper blower."

Mr. G also said that he observed the tanks where operations were performed to be covered other than when the equipment was being taken in or out. He said that covering restricted the air to "increase the velocity" of the air system; he said that fumes were not "escaping and getting out." He said the system exceeds standards and is "taking away air" better than the standard. Mr. G agreed on cross-examination that the employer would not allow him to take photographs, which he wished to do.

Mr. L testified that he has tested plants for airborne metals or contaminants. He described the plating process involving pipes and said that there is a small amount of lead oxide "coming off" in the process, which "goes into solution" and "is immediately precipitated and deposits down into the bottom of the tanks." He said that no lead escapes "in the form of vapors" in this process. He also called attention to the narrow tanks that are very deep as having a "very small surface area." He said that the system he set up for sampling the air in the chrome plating area "fairly and accurately" sampled the air. He described the volume of air that needed to be measured in the samples and stated that the tanks hold 500 times as much molybdenum as lead, but he found no significant levels of molybdenum in the air either, which, he said, indicates that the air system is "quite efficient." He did say, however, that he found lead in one location. In regard to the plating process, he did say that it produces hydrogen gas, which is "swept down those tubes real fast" (he had described the maximum diameter of fumes coming off the surface as restricted to that of the pipe). He restated that lead in the vat drops to the bottom and some particles may be found on the bottom of the tanks depending on how often they are cleaned. He also stated that employees who handle the anodes that are used in the plating process are "not normally going to absorb the lead into [their] skin"; he added that there "is no inhalation problem with the quantities of lead that are displayed here."

Mr. L did testify that in swabbing hands of employees, he found two with some lead on their hands. One did handle anodes, but Mr. L could not say what the basis was for the lead found on workers' hands. Mr. L also commented that to test water for lead, the water to be sampled should be allowed to sit for 24 hours first.

Carrier also provided a letter from Dr. Ga, who indicates that he has a Ph.D., and states that he is a toxicologist. He said that lead is absorbed by inhaling airborne dust or ingesting food or drink, but is poorly absorbed by skin contact. He added that claimant did not have "classic signs or symptoms of lead exposure," adding that symptoms do not occur in adults below about 40 micrograms per 100 milliliters of whole blood. In addition, Dr. W, who also is a Ph.D. and whose letterhead states that he is a "Diplomate American Board of Forensic Toxicology," stated that he had reviewed certain medical records of Dr. R and Dr. Ga's report. For some unknown reason, he referred to rectal dysfunction which is not part of the fact situation. He did say, however, that tests should determine the effect of lead on the hemopoietic system which, he states, is the "major target organ" for lead. He added that the "secondary organ system effected" is the peripheral nervous system "exemplified

by wrist and foot drop." He concluded by saying that "within all reasonable medical probability" claimant "does not suffer from lead poisoning."

Mr. L also had testified that he has worked with Dr. W before and offered that Dr. W has "his doctorate from the (country) Medical School of Toxicology."

The hearing officer is the sole judge of the weight and credibility of the evidence. See Section 410.165. He could choose to give Dr. W's opinion little weight in regard to whether claimant was "poisoned" by lead. As to that question, he could give Dr. R more weight and could also credit Dr. R's statement concerning lead's effect on the peripheral nerve system, loss of libido, and impotence. The hearing officer's findings of fact that claimant has been exposed to lead and that exposure has been a cause of the erectile dysfunction and memory loss are sufficiently supported by the evidence. The hearing officer is not compelled to accept all of Dr. R's opinion, including what the cause of lead exposure was, when he accepted Dr. R's opinion as to claimant's elevated lead level and what effect it can have on his body. In considering causation, he could give some weight to Mr. L's opinion that lead in the tanks or vats settled to the bottom, was not part of the vapor, and that vapor was quickly drawn away from the workplace. In regard to the latter point that the air was quickly drawn away, the hearing officer could also credit the opinion of Mr. G. The evidence sufficiently supports the determination that claimant did not show that he incurred lead poisoning in the course and scope of employment.

Finding that the decision and order are not against the great weight and preponderance of the evidence, we affirm. See In re King's Estate, 150 Tex. 662, 244 S.W.2d 660 (1951).

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Joe Sebesta  
Appeals Judge

CONCUR:

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Thomas A. Knapp  
Appeals Judge

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Gary L. Kilgore  
Appeals Judge