



Missouri Court of Appeals
Southern District

Division Two

HOWARD MORELAND,)
)
 Claimant-Respondent,)
)
 vs.) No. SD31692
)
 EAGLE PICHER TECHNOLOGIES, LLC,)
)
 Employer-Appellant.)

APPEAL FROM THE LABOR AND INDUSTRIAL RELATIONS COMMISSION

AFFIRMED.

Eagle Picher Technologies, LLC (“Eagle Picher”) appeals the award of the Labor and Industrial Relations Commission (“Commission”) in favor of Howard Moreland (“Moreland”).

We affirm the decision of the Commission.

Factual and Procedural History

Moreland began working for Eagle Picher in 1973. Eagle Picher is involved in the manufacturing of batteries, fertilizer, and boron. Moreland’s claim for workers’ compensation benefits centered on his employment there from 1984 to approximately 1994 at the facility located at C & Porter Street in Joplin. At this location, Moreland began working in

Building 4, but frequently worked in Building 11. He primarily worked in the department¹ in Building 4 that manufactured nickel cadmium and nickel hydrogen components for battery cells, and sometimes worked in the rubber lab. He also worked in close proximity to the plastic shop. Moreland was initially a tank operator; he was promoted after one year to working foreman.

Moreland first became ill in the summer of 2005. He sought treatment on June 14, 2005, and subsequently received extensive medical testing and treatment. He was 51 years old at that time. Physicians in Joplin suspected Moreland had multiple myeloma and referred Moreland for treatment to the University of Arkansas. On July 29, 2005, his diagnosis was confirmed at the University of Arkansas Medical Center-Multiple Myeloma Institute (the “Institute”), and a treatment plan was developed. Moreland’s last day on the job for Eagle Picher was August 1, 2005.

Moreland underwent extensive treatment, including chemotherapy and multiple surgeries. The parties stipulated that Moreland’s past medical expenses were \$734,586.49 and travel expenses were \$17,434.59. Moreland filed a claim for compensation on December 17, 2007, and a hearing was held on August 20, 2010.²

Notice to Employer

In 2005, during the onset of Moreland’s illness, Jeffrey Dermott (“Dermott”) was Moreland’s supervisor at Eagle Picher. Moreland testified that in late June 2005, after he first started missing work due to his illness, he kept Dermott informed of his medical condition. Moreland’s cell phone records reflect that Moreland frequently called Eagle Picher. In

¹ The nickel cadmium and nickel hydrogen processes were conducted in the same department. Eagle Picher quit making nickel cadmium electrodes in approximately 1992 so the department was then referred to as the nickel hydrogen department. Both Eagle Picher employees and management interchangeably refer to this department as the “nickel cadmium/nickel hydrogen” area or simply the “nickel hydrogen” area.

² The parties stipulated that the Workers’ Compensation Law applicable to this claim was that which was in effect prior to August 28, 2005, when significant amendments to the law took affect.

particular, on July 29, 2005, Moreland's phone records demonstrated a 15-minute call to Eagle Picher. Moreland testified that on the 29th, he called Dermott after receiving his final diagnosis of multiple myeloma, and told Dermott his diagnosis and that the cause of the disease was exposure to chemicals at Eagle Picher. Moreland explained he told Dermott the cause of his disease because Dermott asked him.

Dermott similarly testified that after Moreland began treatment for multiple myeloma, Moreland called him to keep him apprised of his treatment progress. Dermott, however, stated he did not recall Moreland telling him that his multiple myeloma diagnosis was related to his work at Eagle Picher.

The parties stipulated that Eagle Picher did not file a report of injury with the Division of Workers' Compensation until after Moreland filed his original claim for compensation on December 17, 2007.

Working Environment

Moreland and other Eagle Picher employees testified regarding the work environment in Building 4. Moreland testified that after filing his claim, he requested Eagle Picher to identify the chemicals to which he had been exposed while working at Eagle Picher and Eagle Picher produced some Material Safety Data Sheets ("MSD Sheets") for those chemicals. Moreland said those chemicals included benzene, trichloroethylene (TCE), cadmium, nickel, and platinum. Moreland testified he was exposed to benzene as it was used in the plastics in the plastic shop and was also used in the rubber lab. Moreland testified the rubber lab gave off the most fumes, being a "sweet fragrance" like "[m]aybe a flower[]" when the rubber first came out of the icebox and then once it was heated, a licorice smell. The plastic shop and the nickel cadmium/nickel

hydrogen area also gave off a lot of fumes. Moreland testified he was also exposed daily to cadmium during the impregnation process.³

Moreland testified that the plastic shop was located immediately next to the nickel cadmium/nickel hydrogen area, where Moreland typically worked. Benzene was in the glue that held different pieces of plastic together. The heating of the glue while plastic was molded would create fumes and circulate throughout the building when fans were operating. Additionally, employees would cut these plastic parts throughout a work day, which created fine, sawdust-like particles. So much dust would fly that it would collect three to four inches deep on the work floor where Moreland worked in the nickel cadmium/nickel hydrogen area.

Moreland testified the chemical fumes soaked into his clothing and he had to change his clothes every night when he returned home because his clothes stank of chemicals. Moreland also explained that despite company rules, he commonly ate in the work area because employees were not able to leave if a process was running. Moreland testified that Eagle Picher personnel tested the water from water fountains located near work areas and the results showed the water unfit to drink. This prompted the plant to remove water fountains.

Moreland testified he also cleaned out chemicals in a cabinet prior to the remodeling of Building 4, which included zinc, lead, carbon, benzene, nickel, and cadmium. He also testified that he ordered the rubber product used in the processing and that the certificate of compliance or “cert” showing the “recipe” included benzene as an ingredient. Moreland identified being exposed to benzene, trichloroethylene (TCE), nickel, cadmium, and platinum.

Moreland also testified that from 1984 until sometime in the early 1990s, he did not wear any respiratory protection and Eagle Picher did not provide him with respiratory protection.

³ Extensive testimony was given regarding the different work processes, but it is not necessary to recite those processes for disposition of this appeal.

Moreland also testified that from 1984 to the early 1990s, Eagle Picher failed to provide proper ventilation in the nickel hydrogen area. Moreland explained that prior to the remodeling, which included new ventilation in the early 90s, a tissue could be held up under the ventilation system where the employees worked and the ventilation would not suck up the tissue. In contrast, Moreland explained that after the new ventilation system was installed, it could suck Moreland's hat right off his head and shoot it through the stacks. Moreland testified that he reported the inadequate ventilation system to management numerous times. Moreland also named four people in management he told about his concerns with the inadequate ventilation hoods in the rubber lab. Moreland further noted that Eagle Picher did not provide him with specialized training in working safely with the chemicals. Moreland explained safety did not become more of an issue until the early 90s.

Moreland additionally testified that Jim Morgan, his former supervisor in Building 4, was diagnosed with bone marrow cancer and subsequently died.

John Newberry ("Newberry") testified he worked with Moreland in Building 4 in the "nickel hydrogen" "negative room." He testified there were fumes from washing the negative plates with chemicals such as trichloroethylene. Newberry explained the fumes from this process were mostly contained within the area, but that fumes from other processes in the building would filter through. The washing process included dipping the racks in nitric acid. Yellow smoke would emanate during this process. Newberry testified that visitors to the plant would leave immediately because the fumes burned and tickled their throats. Newberry testified that employees did not wear respiratory equipment while working around these fumes.

Kathleen Ogden ("Ogden") testified she also worked with Moreland in Building 4. She testified that although "fans were always going[]" they were not effective in removing fumes and

dust, but instead caused it to blow back onto the employees. Ogden testified she was familiar with the environment in and around the plastic shop, and the smell of glue was very strong and continuous all day, every day. She also testified that the labels on the containers used to make glue indicated the material was a cancer-causing agent. Ogden testified she received acid burns on her skin and eyes, and she inhaled fumes every day. She stated employees wore aprons, boots, gloves, and glasses, but there was no respiratory protection and no medical monitoring. Additionally, she testified there was no training from Eagle Picher on how to deal with the dust and fumes. Ogden named eight former Eagle Picher employees she believed had died from cancer.

Lee Roy Christy (“Christy”) testified he worked with Moreland in the nickel cadmium/nickel hydrogen area. He stated that benzene was present in the “strippers” used during the cleaning process. He verified the presence of “thick” fumes from the cleaning process. He additionally verified the presence of fumes and dust—thick enough to pick up with a shovel—from the plastic department, just across the hall from where he and Moreland worked. He verified there was poor ventilation before “good” vents were added in 1992 during the remodeling of Building 4. He testified he was exposed to potassium hydroxide (KOH), which burned his skin, leaving scars. Christy testified he threw a number of containers away each day and would remove the labels before disposal. He further testified he did not know why the labels were removed, but did as he was instructed.

Eagle Picher’s Investigation

Dennis Chiapetti (“Chiapetti”), chemist and Eagle Picher’s production supervisor, began working for Eagle Picher in 1986. He testified he worked off and on in Building 4 from 1986 through 2008 conducting lab analyses. Chiapetti testified that after Moreland filed his workers’

compensation claim, he was directed by Eagle Picher to conduct an investigation concerning Moreland's work environment and the chemicals used in lab analyses in Building 4. He was directed to go back to the MSD Sheets and chemical inventory to determine "[w]hat chemicals were used in the lab, what we did analysis on, the solutions and on the finished product."

Chiapetti testified that in the process of doing his investigation, he compiled an analytical procedures manual. As part of that manual, Chiapetti compiled a document entitled, "EP-MS-217, Analytical Procedures for Nickel Hydrogen Components and Processes," which was entered into evidence as Exhibit 2. Chiapetti testified that Exhibit 2 was important because it contained "all of the procedures and the chemicals used for lab analysis for these components and solutions[,] and identified what chemicals were used in lab analysis, going back to the early part of 1986.

Chiapetti further testified that the information contained in Exhibit 2, along with his own personal experience in doing lab analysis in Building 4, helped him form an opinion that during the time Moreland worked in Building 4, the chemicals used in the analytical process for nickel hydrogen batteries included potassium hydroxide, nitric acid, hydrochloride acid, ammonium chloride, ethylenediaminetetraacetic acid (EDTA), magnesium sulfate, eriochrome black T, acetic acid, hydrazine sulfate, sodium carbonate, phenolphthalein, methyl orange, and sulfuric acid.

On cross-examination, Chiapetti admitted that his investigation did not disclose the procedures and chemicals concerning the manufacturing of nickel cadmium components, nor did he look for the analytic procedures for nickel cadmium. Chiapetti agreed that at one time, the nickel hydrogen department in Building 4 was originally the nickel cadmium department. Chiapetti testified that Eagle Picher quit making nickel cadmium electrodes in approximately

1992. Chiapetti further admitted that the analytical procedures for nickel hydrogen and nickel cadmium were dissimilar, but testified that benzene was not used in the nickel cadmium or nickel hydrogen processes.

Chiapetti also identified three MSD Sheets, which reflected chemicals used in the glue in the plastic shop. Chiapetti testified that none of the chemicals included benzene. However, he agreed that the MSD Sheet for an acrylic adhesive promoter used as an accelerator to set up the glue (Exhibit 13), showed the presence of “dimethylaniline minor . . . also known as benzenamine dimethyl[.]”; a benzene-related chemical that has a benzene ring.

Chiapetti testified that the certificates of compliance from 1985 to 1995, for the raw rubber, did not contain benzene. Chiapetti agreed that the MSD Sheets for raw rubber stated it had a “Hazardous Decomposition: Carbon monoxide, carbon dioxide, hydrogen cyanide, oxides of nitrogen, trace amounts of aromatic and aliphatic hydrocarbons[.]” After review of some research, Chiapetti stipulated that benzene is an “aromatic hydrocarbon” and has a sweet smell.

Chiapetti acknowledged that prior to the remodeling in the 1990s, the work areas in Building 4 were not separated and that fumes could filter through Building 4 from one work area to another. He agreed employees in Building 4 did not wear respirators.

Chiapetti testified he had never conducted any respiratory testing in the plant to detect concentration levels of any chemical, nor any chemical testing of any chemicals to determine the effect on dermal or skin exposure, but that the Safety Department had. He testified he did not obtain copies of those reports for his investigation, or copies of the chemical inventories maintained by the Safety Department, which would have shown the chemicals being used at the time of Moreland’s exposure.

Chiapetti testified that based on his experience, and his investigation of the process of lab analysis in Building 4, benzene had never been used. He also testified he personally never used benzene in lab analysis, did not find benzene had ever been used, never personally saw benzene being used, and never saw benzene at all in Building 4. Chiapetti denied Moreland was exposed to benzene during his employment in Building 4.

Chiapetti did not prepare a written report with the results of his investigation, but rather gave an oral report of his findings to Eagle Picher management.

William Ideker (“Ideker”), became the Division Director of Health and Safety and Environmental at Eagle Picher in 1992. He testified benzene was not utilized in Moreland’s workplace or Building 4, based on the investigation conducted by Chiapetti. Ideker did admit that small quantities of benzene had been used in Building 11, where they conducted a “postmortem” on batteries returned to Eagle Picher to see if they functioned properly. Ideker stated his records showed Moreland had never worked in Building 11.⁴ Ideker admitted the Hazardous Waste Disposal records of Eagle Picher recorded benzene being sent for disposal three times, twice in 1999 and once in 2004, from Building 11.

Ideker was cross examined using the “Environmental Covenant” (Exhibit U) issued by the Missouri Department of Natural Resources (“DNR”). Ideker was asked about the constituents detected by the DNR that “impact[ed] [the] surface soil exceed[ing] human health screening criteria.” Some of these constituents consisted of “polyaromatic hydrocarbons,” which included benzoanthracene, benzoapyrene, and benzolbflorantene. Ideker agreed that “polyaromatic hydrocarbons” were “benzene compounds,” but would not say they were “used at

⁴ Moreland testified that when he began working for Eagle Picher in 1984, he began in Building 4, but frequently worked in Building 11 on an overtime basis. After he was promoted to foreman in Building 4, Moreland testified he was in Building 11 on a daily basis. Moreland testified that Building 4 was only about an “alley width from Building 11.” They would just go “from door to door.”

Eagle Picher . . . because . . . we're talking about 56 acres of property" Reports which would have shown the exact location where these constituents or compounds were being used, were not produced by Eagle Picher.

Ideker further testified that a fire in September 1991, destroyed Building 54 (the building adjacent to Building 4). He stated Building 54 was the document control center, which would have included the analytical procedures and other pertinent files regarding the chemicals used in Building 4 from 1984 to 1991. The "Analytical Procedures for Nickel Hydrogen" (Exhibit 2) was approved for final use in December 1991. Ideker could not say for certain what documents were used in the initial creation of the analytical procedures, or whether any documents used as a basis for the analytical procedures were lost in the fire.

Ideker testified that there were no chemical inventories from 1984 through 1995. He explained that while MSD Sheets were kept, after a chemical was removed from the process, the MSD Sheets were taken down and revised to reflect the new chemicals. He specifically stated that Chiapetti's testimony that chemical inventories were being maintained on a historical basis was incorrect. Ideker indicated written production procedures would have shown what chemicals were used in Building 4, but that Chiapetti did not pull those procedural documents in the course of his investigation. Ideker further noted that he was not sure whether any of the production procedures prepared before 1991 would have been destroyed in the fire in Building 54. Ideker testified because the industrial hygiene monitoring data documents (Exhibit 5) did not show benzene was being monitored in Building 4 after 1984, which would indicate employees were not using benzene in Building 4.

Eagle Picher also did not produce any field studies or lab results to indicate the level of particulates from hazardous chemicals during the time in which Moreland worked in Building 4.

Dr. Allen Parmet's Testimony

Dr. Allen Parmet (“Dr. Parmet”), a specialist in occupational medicine, testified that in reviewing Moreland’s case, he was of the opinion that Moreland’s exposure to chemicals at his employment was the cause of his multiple myeloma. Specifically, he testified that benzene, cadmium, lithium, platinum, nickel, and trichloroethylene contributed to the development of Moreland’s multiple myeloma. He further explained the toxicity of each of those chemicals. He testified that Moreland was exposed to these chemicals without regular respiratory protection, that he was more exposed to those chemicals than members of the general population, and that this exposure to these airborne chemicals was a substantial factor more likely than not in contributing to his myeloma. In reaching this conclusion, Dr. Parmet identified factors in epidemiology regularly recognized by physicians when considering whether there is a casual connection between an agent and a disease—the “Hill criteria.” He then applied the Hill criteria to Moreland’s case.

Dr. Parmet also explained that the Occupational Safety and Health Administration (“OSHA”) regulation for benzene exposure is one part per million upon an eight-hour, time-weighted average. If one has an open tank with a liquid, some of that liquid will simply escape into the atmosphere as a vapor and unless one does something to prevent it by either covering the tank or using a very special kind of surface ventilation system, it will escape into the atmosphere and enter the workers’ breathing space.

Dr. Mauricio Pineda-Roman's Testimony

Dr. Mauricio Pineda-Roman (“Dr. Pineda”), Moreland’s treating oncologist, testified extensively to the protocol treatment that Moreland underwent at the Institute. He also identified the cause of Moreland’s multiple myeloma as exposure to chemicals at his employment, noting

Moreland was only 51 years old; whereas, other patients typically present with multiple myeloma in their 60s.

Dr. Bernard Goldstein's Testimony

Dr. Bernard Goldstein (“Dr. Goldstein”), a professor of medicine at the University of Pittsburg Graduate School of Public Health and School of Medicine, and also a physician, toxicologist, and hematologist, testified on behalf of Moreland. Dr. Goldstein testified he had studied benzene toxicity and published close to one hundred papers or reviews upon the subject since the 1960s. Dr. Goldstein also specifically published and instructed members of the federal judiciary on issues concerning toxicology and, in particular, the issue of causation and whether chemical agents should be deemed to have caused or contributed to the development of multiple myeloma.

Dr. Goldstein testified that benzene was reasonably probable to be a cause of multiple myeloma based upon epidemiological data,⁵ bioassays (experiments on laboratory animals), and mechanistic data.⁶ Dr. Goldstein testified that these sources of information are recognized by the International Agency for Research on Cancer and could be applied to substantiate that benzene caused multiple myeloma. Dr. Goldstein further testified that he was 90 percent sure benzene causes multiple myeloma. Dr. Goldstein also explained that he considered “reasonable probable” to mean “more than 50 percent.”

Dr. Goldstein explained that benzene is a well-known potent hematological toxin; it was originally noted—since 1897—to cause human aplastic anemia, which is a failure of production of blood cells by the bone marrow. In the 1970s, after a conclusive study, the scientific

⁵ Dr. Goldstein testified epidemiological data concerns statistical studies in which researchers attempt to document past exposures of a chemical agent upon a class of individuals.

⁶ Dr. Goldstein explained mechanistic data refers to accepted medical principles confirmed by medical research.

community finally and fully accepted benzene as a cause of adult leukemia. This led to an extensive review of the earlier epidemiological literature on benzene and multiple myeloma, and in a combined analysis of seven pertinent studies, reported statistically significant association between benzene and multiple myeloma. Since this publication, numerous other studies have reported elevated risks of multiple myeloma associated with benzene exposure. Dr. Goldstein explained several of these recent studies.

Dr. Goldstein reported⁷ that multiple myeloma is considered to be a non-Hodgkin's lymphoma, a cancer that has been clearly demonstrated to occur in benzene-exposed laboratory animals, with ample evidence showing the same effect in humans. Dr. Goldstein additionally reported that the mechanistic evidence in support of the ability of benzene to cause cancer of plasma cells has gotten even stronger in the past twenty years. Benzene exposure clearly causes chromosomal damage to human lymphocytes as evidenced by studies of exposed workers, as well as laboratory animals. Dr. Goldstein explained: "[T]here can be no question that exposure to benzene causes damage to human lymphocyte chromosomes, including a variety of genetic abnormalities that are known to increase cancer risk."

Dr. Goldstein testified that multiple myeloma is an identifiable disease and it is reasonably probable that exposure to benzene, either by air or dermal absorption, or both, is a substantial factor to cause the compounding of cells that lead to multiple myeloma.

Dr. Goldstein disagreed with Dr. Jonathan Borak's contention that obesity was a cause of multiple myeloma. Dr. Goldstein found that Moreland's obesity, if anything, explained the causal connection between benzene toxicity and multiple myeloma. Occupational physicians

⁷ Dr. Goldstein's entire July 8, 2010 report, was entered into evidence as "Exhibit 2."

consider body fat to be susceptible to benzene toxicity, which would explain the higher risk among females.

Eagle Picher's counsel objected to Dr. Goldstein's testimony on grounds that it did not meet the minimum standard required of expert testimony by section 490.065.⁸ Counsel objected at the deposition and renewed the objection at the time Dr. Goldstein's deposition was offered into evidence at the hearing.

Dr. Jonathan Borak's Testimony

Dr. Jonathan Borak ("Borak"), a physician and toxicologist, reviewed Moreland's case at the request of Eagle Picher. He testified that epidemiological studies had not been established indicating benzene exposure was a chemical cause of multiple myeloma, and disputed whether other chemicals identified by Dr. Pineda and Dr. Parmet were causes of multiple myeloma. Dr. Borak had various criticisms of the opinions of Drs. Pineda, Parmet, and Goldstein regarding their conclusions that Moreland's multiple myeloma was caused by the chemicals at Eagle Picher.

Commission's Award

The Administrative Law Judge ("ALJ") awarded Moreland \$752,021.08 in unpaid medical expenses, and permanent and total disability benefits at a rate of \$397.45 per week from August 1, 2005 through the remainder of Moreland's lifetime. Additionally, the ALJ awarded Moreland a 15 percent penalty of all past medical expenses, past permanent total disability benefits, and future permanent total disability benefits based upon Eagle Picher's violations of sections 292.300, 292.310 and 292.320. The award further determined that: (1) Eagle Picher failed to timely file a report of injury; (2) Dr. Goldstein's testimony met the standard required of expert testimony; and (3) Moreland suffered an occupational disease as defined by section

⁸ All references to statutes are to RSMo 2000, unless otherwise indicated.

287.067.1. The Commission affirmed the ALJ's award and decision, and incorporated the findings into the Commission's award. This appeal followed.

Eagle Picher raises four points on appeal alleging the Commission erred in finding: (1) Moreland filed a timely claim for compensation; (2) the testimony of Dr. Goldstein met the standard for admissibility of expert testimony; (3) Moreland sustained an occupational disease; and (4) Eagle Picher violated workplace safety statutes.⁹ The primary issues presented for our determination are whether competent and substantial evidence supported the Commission's findings that: (1) Moreland filed a timely claim for compensation; (2) the testimony of Dr. Goldstein met the standard for admissibility of expert testimony; (3) Moreland sustained an occupational disease; and (4) Eagle Picher violated workplace safety statutes.

Standard of Review

As set forth in article V, section 18 of the Missouri Constitution, judicial review of the Commission's¹⁰ award is a determination of whether the award is "supported by competent and substantial evidence upon the whole record." *Hampton v. Big Boy Steel Erection*, 121 S.W.3d 220, 222 (Mo. banc 2003) (internal quotation marks omitted). Pursuant to section 287.495.1, this Court

shall review only questions of law and may modify, reverse, remand for rehearing, or set aside the award upon any of the following grounds and no other:

⁹ Eagle Picher's briefing deficiencies make our job more difficult. Eagle Picher's brief contains numerous Rule 84.04 violations. For example, Eagle Picher's statement of facts is improperly argumentative and does not impart an understanding of relevant facts, in violation of Rule 84.04(c). Also, each of Eagle Picher's points relied on do not comply with Rule 84.04(d)(2). By way of example, Eagle Picher's first point relied on reads: "THE COMMISSION ERRED IN FINDING THAT RESPONDENT TIMELY FILED A CLAIM FOR COMPENSATION." We also note Moreland's brief violates Rule 84.04(i) in that his argument fails to include specific references to the record. While these violations have made our review more difficult, neither brief is so deficient as to impede our disposition on the merits.

¹⁰ Findings of the ALJ adopted by the Commission and incorporated into the Commission's decision are reviewed by the appellate court as the findings of the Commission. *Sell v. Ozarks Med. Ctr.*, 333 S.W.3d 498, 505 (Mo.App. S.D. 2011).

- (1) That the commission acted without or in excess of its powers;
- (2) That the award was procured by fraud;
- (3) That the facts found by the commission do not support the award;
[and]
- (4) That there was not sufficient competent evidence in the record to warrant the making of the award.

§ 287.495.1; *Hampton*, 121 S.W.3d at 222. An award that is clearly “contrary to the overwhelming weight of the evidence is, in context, not supported by competent and substantial evidence.” *Id.* at 223. This Court “must determine whether the Commission reasonably could have made its findings and reached its result based upon all of the evidence before it.” *Fitzwater v. Dept. of Public Safety*, 198 S.W.3d 623, 627 (Mo.App. W.D. 2006). This Court defers to the Commission on issues involving the credibility of witnesses and the weight to be given to their testimony. *Sell v. Ozarks Med. Ctr.*, 333 S.W.3d 498, 506 (Mo.App. S.D. 2011). While we defer to the Commission on issues of fact, we review questions of law *de novo*. *Id.*

Analysis

Point I: Claim for Compensation Timely Filed

Eagle Picher first contends the Commission erred in finding Moreland’s claim for compensation was timely filed in that the date of the stated injury is July 25, 2005, but Moreland failed to file a claim until December 17, 2007, which is not within the two-year, statutorily-mandated time period, pursuant to section 287.430. Eagle Picher, however, fails to recognize that the statute of limitations in this case was three years because Eagle Picher failed to timely file a report of injury after Moreland promptly notified Eagle Picher of a potential work-

related occupational disease. Section 287.430 requires claims for compensation to be filed within two years after the date of injury,

except that if the report of the injury or the death is not filed by the employer as required by section 287.380, the claim for compensation may be filed within three years after the date of injury, death, or last payment made under this chapter on account of the injury or death.

§ 287.430.

Here, the evidence supports that on July 29, 2005, Moreland called Dermott, after receiving his final diagnosis of multiple myeloma from Dr. Pineda, and told Dermott his diagnosis and that the cause of the disease was exposure to chemicals at Eagle Picher. Moreland's phone records reflect a 15-minute phone call from Moreland's cell phone to Eagle Picher on July 29. While Ideker testified that Eagle Picher was not aware until December 17, 2007, of Moreland's claim, and Dermott testified he did not remember Moreland telling him that his work at Eagle Picher had caused him to develop multiple myeloma, the Commission found Moreland's testimony "credible and most persuasive." Again, this Court must defer to the Commission on issues involving the credibility of witnesses and the weight to be given to their testimony. *Sell*, 333 S.W.3d at 506.

The parties stipulated that Eagle Picher did not file a report of injury with the Division of Workers' Compensation until after Moreland filed his original claim for compensation on December 17, 2007. Because Eagle Picher failed to timely file a report of injury, as required by section 287.380, Moreland's claim—filed within three years of the injury—was timely. Accordingly, the Commission's finding is supported by competent and substantial evidence. Point I is denied.

Point II: Dr. Goldstein's Testimony Admissible

Eagle Picher next argues the Commission erred in finding the testimony of Dr. Goldstein meets the standard for admissibility of expert testimony under section 490.065. We disagree.

Section 490.065 governs admissibility of expert testimony in contested administrative cases. *Elmore v. Missouri State Treasurer as Custodian of Second Injury Fund*, 345 S.W.3d 361, 368 (Mo.App. S.D. 2011). Section 490.065 provides that admissibility of expert testimony requires a determination of whether: (1) the expert is qualified; (2) the expert's testimony will assist the trier of fact; (3) the expert's testimony is based upon facts or data that are reasonably relied on by experts in the field; and (4) the facts or data on which the expert relies are otherwise reasonably reliable. § 490.065.

Here, Eagle Picher specifically argues only that Dr. Goldstein's opinion is not based on medical certainty, and is not based on any medical or scientific facts that are reasonably relied upon by experts in the field of medical expertise. However, Dr. Goldstein testified that he considered "reasonable probable" to mean "more than 50 percent." Dr. Goldstein specifically testified that he was 90 percent sure benzene causes multiple myeloma based upon epidemiological data, bioassays, and mechanistic data. Moreland does not have to establish the elements of his case on the basis of absolute certainty; it is sufficient if he shows them by "reasonable probability." *White v. Henderson Implement Co.*, 879 S.W.2d 575, 577 (Mo.App. W.D. 1994) *overruled on other grounds by*, *Hampton*, 121 S.W.3d at 221. Dr. Goldstein extensively explained many of the studies which show causation between benzene and multiple myeloma. Further, Dr. Goldstein testified that these sources of information are recognized by the International Agency for Research on Cancer and could be applied to substantiate that

benzene causes multiple myeloma. Thus, the facts and data on which Dr. Goldstein based his opinions are a type reasonably relied on by experts in the field.

Accordingly, the Commission's finding that Dr. Goldstein's testimony meets the standard required of expert testimony was supported by competent and substantial evidence. Point II is denied.

Point III: Moreland Sustained an Occupational Disease

Eagle Picher's third point alleges error in the Commission's finding that Moreland had an occupational disease in that "[a]ll evidence presented in this case showed that no empirical link between benzene and multiple myeloma has ever been made by medical or scientific research or investigation" We disagree.

An "occupational disease" is defined as:

an identifiable disease arising with or without human fault out of and in the course of the employment. Ordinary diseases of life to which the general public is exposed outside of the employment shall not be compensable, except where the diseases follow as an incident of an occupational disease as defined in this section. The disease need not to have been foreseen or expected but after its contraction it must appear to have had its origin in a risk connected with the employment and to have flowed from that source as a rational consequence.

§ 287.067.1.

"A claimant must submit medical evidence establishing a probability that working conditions caused the disease, although they need not be the sole cause." *Jacobs v. City of Jefferson*, 991 S.W.2d 693, 698 (Mo.App. W.D. 1999) *overruled on other grounds by*, *Hampton*, 121 S.W.3d at 221. The burden of proving all the essential elements of the claim and establishing a causal connection between the accident and the injury rests on the claimant. *White*, 879 S.W.2d at 577 (Mo.App. W.D. 1994) *overruled on other grounds by*, *Hampton*, 121 S.W.3d at 221. Again, the claimant does not have to establish the elements of his case on the

basis of absolute certainty; it is sufficient if he shows them by reasonable probability. *Id.* “Probable means founded on reason and experience which inclines the mind to believe but leaves room for doubt.” *Id.* (quoting *Fischer v. Archdiocese of St. Louis*, 793 S.W.2d 195, 198 (Mo.App. E.D. 1990)).

“To prove causation it is sufficient to show a recognizable link between the disease and some distinctive feature of the job which is common to all jobs of that sort.” *Kent v. Goodyear Tire & Rubber Co.*, 147 S.W.3d 865, 869 (Mo.App. W.D. 2004) (internal quotation and citation omitted). “Missouri law does not require a finding of which specific chemical caused the occupational disease in question in order to recover under the Workers’ Compensation Act.” *Id.* “An occupational disease exists when a peculiar risk or hazard is inherent in the work conditions and a disease follows as a natural result.” *Causey v. McCord*, 763 S.W.2d 155, 157 (Mo.App. S.D. 1988).

Whether a particular employment involves a peculiar risk or ‘special quality’ is determined from two criteria: (1) whether there was an exposure to the disease which was greater than or different from that which affects the public generally, and (2) whether there was a recognizable link between the disease and some distinctive feature of the claimant’s job which is common to all jobs of that sort.

Id. (internal quotation and citation omitted).

First, the Commission found the opinions of Drs. Pineda, Parmet, and Goldstein “provide substantial and competent evidence to meet claimant’s burden of proof of proving the probability that claimant’s work exposure caused the disease.” The Commission explicitly acknowledged that Dr. Borak’s testimony pointed out multiple discrepancies he believed were contained in the depositions, but found the opinions of Drs. Pineda, Parmet, and Goldstein persuasive and credible. Dr. Pineda and Dr. Parmet testified that Moreland’s exposure to benzene and other chemicals caused his multiple myeloma. Furthermore, Dr. Goldstein testified he was 90 percent

certain that exposure to benzene causes multiple myeloma. This evidence was previously summarized in this opinion and need not be repeated. “A single medical opinion will support a finding of compensability even where the causes of the disease are indeterminate.” *Kelley v. Banta & Stude Const. Co., Inc.*, 1 S.W.3d 43, 48 (Mo.App. E.D. 1999).

Eagle Picher’s argument, which is primarily based on Dr. Borak’s conflicting opinion, ignores well-settled case law which places the duty of accepting or rejecting medical evidence in the hands of the Commission. When conflicting expert opinions are offered, the Commission must reconcile the evidence and make a determination of fact. *Elmore*, 345 S.W.3d at 370. While Eagle Picher’s expert, Dr. Borak, disagreed with the conclusions of Drs. Goldstein, Pineda, and Parmet, the Commission’s decision to accept the medical testimony showing Moreland’s work exposure caused his disease was supported by competent and substantial evidence on the record as a whole, and as a result, we cannot conclude that the Commission erred in this finding. *See Lawson v. Ford Motor Co.*, 217 S.W.3d 345, 351 (Mo.App. E.D. 2007).

The Commission also found that Moreland established there was an exposure to the disease which was greater than, or different from, that which affected the general public based upon the testimony of former Eagle Picher employees and Moreland, which the Commission found to be credible and persuasive. A review of the record reveals substantial, competent evidence supporting this finding; for example, Moreland testified he was exposed to benzene as it was used “in the [glue] that they used over [in] the plastic shop” and “used in the process of the rubber.” He explained the heating of the glue while plastic was molded would create fumes and circulate throughout Building 4. Additionally, multiple witnesses testified about the poor ventilation and the cross-contamination of fumes from various work areas. Christy specifically

identified benzene as being used as a stripper in the nickel cadmium/nickel hydrogen department where he worked with Moreland. Documentation further evinced the use of benzene-related chemicals in the various processes where Moreland worked.

Finally, the Commission found there was a recognizable link between the multiple myeloma and some distinctive features of Moreland's job, which was common to all jobs of that sort. Again, this finding is supported by substantial evidence. Moreland worked for approximately ten years in Building 4, where he was exposed to fumes and dust that contained benzene and other toxic chemicals. Specifically, he worked alongside other employees in the nickel cadmium/nickel hydrogen area where all were exposed to fumes that came from the open vats holding hazardous chemicals. Moreland's supervisor, Jim Morgan, was also diagnosed with bone marrow cancer and subsequently died.

As such, the Commission's finding that Moreland suffered an occupational disease, as defined in section 287.067.1, was supported by competent and substantial evidence. Point III is denied.

Point IV: Eagle Picher Violated Workplace Safety Statutes

Finally, Eagle Picher contends the Commission erred in finding that Eagle Picher violated workplace safety statutes or regulations in that Moreland did not produce expert testimony to rebut Ideker's testimony, and the documentary evidence allegedly showed that Eagle Picher was in compliance with all pertinent laws governing safety in Eagle Picher's facilities. We disagree.

Section 287.120.4 provides: "Where the injury is caused by the failure of the employer to comply with any statute in this state or any lawful order of the division or the commission, the

compensation and death benefit provided for under this chapter shall be increased fifteen percent.” § 287.120.4

The Commission based its award on Eagle Picher’s violations of three provisions from the Occupational Disease Act—sections 292.300, 292.310, and 292.320. Section 292.300 mandates

[t]hat every employer of labor in this state engaged in carrying on any work, trade or process which may produce any illness or disease peculiar to the work or process carried on, or which subjects the employee to the danger of illness or disease incident to such work, trade or process, to which employees are exposed, shall for the protection of all employees engaged in such work, trade or process, adopt and provide approved and effective devices, means or methods for the prevention of such industrial or occupational diseases as are incident to such work, trade or process[;]

section 292.310 provides

[t]he carrying on of any process, or manufacture, or labor in this state in which antimony, arsenic, brass, copper, lead, mercury, phosphorus, zinc, their alloys or salts or any poisonous chemicals, minerals, acids, fumes, vapors, gases, or other substances, are generated or used, employed or handled by the employees in harmful quantities, or under harmful conditions, or come in contact with in a harmful way, are hereby declared to be especially dangerous to the health of the employees[;] [and]

section 292.320 states

[e]very employer in this state to which sections 292.300 to 292.440 apply shall provide for and place at the disposal of the employees so engaged, and shall maintain in good condition without cost to the employees, working clothes to be kept and used exclusively by such employees while at work and all employees therein shall be required at all times while they are at work to use and wear such clothing; and in all processes of manufacture or labor referred to in this section which are productive of noxious or poisonous dusts, adequate and approved respirators shall be furnished and maintained by the employer in good condition and without cost to the employees, and such employees shall use such respirators at all times while engaged in any work productive of noxious or poisonous dusts.

There was substantial evidence of the noxious working conditions in Building 4 and Eagle Picher’s failure to provide respiratory protection or adequate ventilation for its employees.

Moreland and other employees testified extensively regarding the presence of fumes from hazardous chemicals—including benzene—in Building 4. Visitors to the plant upon smelling the fumes would have to immediately leave as the fumes burned their throats. Additionally, the MSD Sheets documented that employees worked in the proximity of benzene-related chemicals. There was testimony from employees that ventilation was poor until approximately 1992. In fact, the large fans used to create circulation merely pushed fumes that hovered over one vat to another, putting employees at risk to chemicals with which they were not even working. Six employees testified that from 1984 until 1994, no employees wore respirators or any kind of respiratory protection in Building 4. Moreland testified he told management on numerous occasions that ventilation in his work area was poor. Dr. Parmet testified that just a tiny amount of a chemical like benzene or cadmium can contaminate a workplace when there is an open tank of liquid unless something is done to prevent it; the testimony from Eagle Picher employees regarding the work environment in Building 4 indicated that the OSHA regulation for benzene exposure of one part per million was violated.

Eagle Picher presented no evidence that its employees were protected from hazardous materials from 1984 to 1994, as required by sections 292.300, 292.310, and 292.320. Rather, Eagle Picher merely argued that employees were not exposed to hazardous chemicals based upon the testimony of Ideker and Chiapetti. However, Chiapetti's investigation was incomplete and as such, did not contradict the testimony of Eagle Picher's employees regarding the use of benzene and other toxic chemicals, and the presence of fumes emanating from toxic chemicals in Building 4. For example, Eagle Picher did not include the analytical process for manufacturing nickel cadmium components—a process used in Moreland's work area. Also, Ideker testified no chemical inventories existed from 1984 to 1995; specifically, noting Chiapetti was incorrect in

stating chemical inventories were being maintained on a historical basis. Furthermore, Eagle Picher produced business records indicating employees worked in the proximity of benzene-related chemicals. These were all factual issues which the Commission decided in favor of Moreland.

A review of the record reveals substantial, competent evidence supports the Commission's finding that Eagle Picher committed numerous safety violations that caused Moreland's occupational disease. Accordingly, Point IV is denied.

In conclusion, the final award of the Commission is affirmed.

William W. Francis, Jr., Presiding Judge

Barney, J. - Concurs

Bates, J. - Concurs

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Division II