

NO. COA02-1550

NORTH CAROLINA COURT OF APPEALS

Filed: 21 October 2003

HARRY DOUG MATTHEWS,
Employee,
Plaintiff,

v

North Carolina
Industrial Commission
I.C. No. 830008

CITY OF RALEIGH,
Employer,

Self-Insured,
Defendant.

Appeal by defendant from opinion and award entered 24 July 2002 by the North Carolina Industrial Commission. Heard in the Court of Appeals 9 September 2003.

Teague, Campbell, Dennis & Gorham, L.L.P., by Robert C. Kerner, Jr., for defendant-appellant.

Law Office of Leonard Jernigan, by Leonard T. Jernigan, Jr., N. Victor Farah, and Lauren R. Trustman, for plaintiff-appellee.

LEVINSON, Judge.

Defendant (City of Raleigh) appeals from an Opinion of the Industrial Commission (Commission) awarding plaintiff (Harry Matthews) medical benefits and permanent total disability. We affirm the Industrial Commission.

The evidence before the Commission is briefly summarized as follows: Plaintiff was born in 1945 and has a seventh grade education. He worked for defendant as an auto paint and body repairman from 1975 to 1996, a period of twenty-one years.

Throughout his employment with defendant, plaintiff worked at the same location, a two-car garage with attached paint room. His tasks included repainting city vehicles after they were repaired, using spray paint. At the hearing, plaintiff testified that he painted an average of two cars a week.

When plaintiff started working for defendant in 1975, he was thirty years old, married, and in good health. In 1982, after working for defendant for seven years, plaintiff experienced severe breathing problems and was admitted to Johnston Memorial Hospital, in Smithfield. He was also admitted to Duke University Hospital several times during 1982, where he was treated for respiratory difficulties by Dr. Herbert Saltzman, a pulmonary specialist. As part of this treatment, Dr. Saltzman requested samples of the paint products plaintiff used at work. When plaintiff was released from Duke Hospital, Dr. Saltzman's discharge summary stated that plaintiff "works in a paint and body shop where he is heavily exposed to paint vapors[,] and advised that "[i]t is important that this patient no longer be exposed to . . . noxious fumes . . . includ[ing] Isocyanate vapor[.]" Plaintiff stopped painting cars for the first three months after he returned to work, but subsequently resumed painting. However, in an effort to spare plaintiff further health problems, his coworker, Vernon Cummings, did more of the painting than plaintiff.

In the early 1980's, plaintiff began experiencing significant psychological and cognitive problems, including memory loss, inability to concentrate, and difficulty conducting his everyday

affairs. He was treated by several physicians, including Dr. Mark Williams. Dr. Williams diagnosed toxic encephalopathy, a brain disorder caused by exposure to an external toxin source. Plaintiff continued to work for defendant until 1996. On 5 May 1998, he filed a claim for workers' compensation benefits, which defendant denied. Following a hearing on 27 March 2000, a deputy commissioner of the Industrial Commission issued an opinion denying plaintiff's claim on 12 July 2001. Plaintiff appealed, and the case was reviewed by the Full Commission on 23 January 2002. The Commission reversed the deputy commissioner and issued an Opinion and Award in favor of plaintiff on 24 July 2002. The Commission's opinion concluded that plaintiff suffered from toxic encephalopathy caused by long term exposure to chemicals associated with auto painting, such as diisocyanates. The Commission further concluded that plaintiff's toxic encephalopathy was an occupational disease, and that he was totally disabled. The Commission awarded plaintiff medical benefits and permanent total disability compensation. From this opinion and award, defendant appeals.

Standard of Review

Upon appeal from an opinion of the Industrial Commission, this Court is "limited to reviewing whether any competent evidence supports the Commission's findings of fact and whether the findings of fact support the Commission's conclusions of law." *Deese v. Champion Int'l Corp.*, 352 N.C. 109, 116, 530 S.E.2d 549, 553 (2000). Thus, in its review of a workers' compensation claim, the appellate court "does not have the right to weigh the evidence and

decide the issue on the basis of its weight. The court's duty goes no further than to determine whether the record contains any evidence tending to support the finding.'" *Adams v. AVX Corp.*, 349 N.C. 676, 681, 509 S.E.2d 411, 414 (1998) (quoting *Anderson v. Construction Co.*, 265 N.C. 431, 434, 144 S.E.2d 272, 274 (1965)). Further, "evidence tending to support plaintiff's claim is to be viewed in the light most favorable to plaintiff, and plaintiff is entitled to the benefit of every reasonable inference to be drawn from the evidence." *Id.* (citation omitted). Findings of fact made by the Industrial Commission "are conclusive on appeal if supported by competent evidence even though there is evidence to support a contrary finding." *Murray v. Associated Insurers, Inc.*, 341 N.C. 712, 714, 462 S.E.2d 490, 491 (1995) (citing *Morrison v. Burlington Industries*, 304 N.C. 1, 282 S.E.2d 458 (1981)). Moreover:

"The Commission is the sole judge of the credibility of the witnesses and the weight to be given their testimony." . . . [T]he Commission does not have to explain its findings of fact by attempting to distinguish which evidence or witnesses it finds credible.

Deese, 352 N.C. at 115, 116, 530 S.E.2d at 553 (quoting *Anderson*, 265 N.C. at 433-34, 144 S.E.2d at 274).

Defendant presents three arguments on appeal. Defendant argues first that the Commission erred in its conclusion that plaintiff had suffered a compensable occupational disease. Specifically, defendant contends that the record contains "no competent medical evidence" to support the Commission's findings and conclusions regarding plaintiff's exposure to isocyanates and

whether his exposure caused or significantly contributed to his toxic encephalopathy. We disagree.

N.C.G.S. § 97-53 (2001), which lists various compensable occupational diseases, does not include toxic encephalopathy among these. However, pursuant to N.C.G.S. § 97-53(13) (2001), a disease not listed in the statute may nonetheless be compensable if the plaintiff shows that:

(1) [the disease is] characteristic of persons engaged in the particular trade or occupation in which the claimant is engaged; (2) [the disease is] not an ordinary disease of life to which the public generally is equally exposed with those engaged in that particular trade or occupation; and (3) there must be "a causal connection between the disease and the [claimant's] employment."

Rutledge v. Tultex Corp., 308 N.C. 85, 93, 301 S.E.2d 359, 365 (1983) (quoting *Hansel v. Sherman Textiles*, 304 N.C. 44, 52, 283 S.E.2d 101, 105-06 (1981)).

Notwithstanding "the overriding legislative goal of providing comprehensive coverage for occupational diseases," *Booker v. Medical Center*, 297 N.C. 458, 471, 256 S.E.2d 189, 198 (1979), the plaintiff has the burden of proof on all three elements of the *Rutledge* test. *Keel v. H & V Inc.*, 107 N.C. App. 536, 539, 421 S.E.2d 362, 365 (1992). "The first two elements of the *Rutledge* test are satisfied where the claimant can show that 'the employment exposed the worker to a greater risk of contracting the disease than the public generally.'" *Robbins v. Wake Cty. Bd. of Educ.*, 151 N.C. App. 518, 521, 566 S.E.2d 139, 142 (2002) (quoting *Rutledge*, 308 N.C. at 94, 301 S.E.2d at 365).

"The third element of the test is satisfied if the employment 'significantly contributed to, or was a significant causal factor in, the disease's development.'" *Hardin v. Motor Panels, Inc.*, 136 N.C. App. 351, 354, 524 S.E.2d 368, 371 (quoting *Rutledge*, 308 N.C. at 101, 301 S.E.2d at 369-70), *disc. review denied*, 351 N.C. 473, 543 S.E.2d 488 (2000). "Significant [exposure] is to be contrasted with [exposure that is] negligible, unimportant, . . . miniscule, or of little moment." *Rutledge*, 308 N.C. at 102, 301 S.E.2d at 370. Thus, "[w]orkplace exposure is a significant factor if without the exposure 'the disease would not have developed to such an extent that it caused the physical disability which resulted in claimant's incapacity for work.'" *Keel*, 107 N.C. App. at 539, 421 S.E.2d at 365 (quoting *Gay v. J. P. Stevens & Co.*, 79 N.C. App. 324, 330, 339 S.E.2d 490, 494 (1986)).

In its evaluation of the third element - the causal connection between plaintiff's employment and his developing an occupational disease - the Industrial Commission may consider circumstantial evidence:

In the case of occupational diseases proof of a causal connection between the disease and the employee's occupation must of necessity be based on circumstantial evidence. Among the circumstances which may be considered are the following: (1) the extent of exposure to the disease or disease-causing agents during employment, (2) the extent of exposure outside employment, and (3) absence of the disease prior to the work-related exposure as shown by the employee's medical history.

Booker, 297 N.C. at 476, 256 S.E.2d at 200. Additionally, the Commission is not restricted to medical evidence in its

determination of whether plaintiff's exposure to a disease-causing agent at work significantly contributed to his contracting the disease:

In determining whether a claimant's exposure to [a harmful agent] has significantly contributed to, or been a significant causative factor in, [occupational] disease, the Commission may, of course, consider medical testimony, but its consideration is not limited to such testimony.

Harvey v. Raleigh Police Dept., 96 N.C. App. 28, 35, 384 S.E.2d 549, 553 (quoting *Rutledge*, 308 N.C. at 105, 301 S.E.2d at 372), *disc. review denied*, 325 N.C. 706, 388 S.E.2d 454 (1989). In the instant case, defendant concedes that there was evidence of plaintiff's exposure to paint and solvents. Defendant, however, contends that plaintiff failed to prove any "significant" exposure to toxic chemicals and fumes, and argues that the evidence showed only "very limited" exposure to the relevant chemicals. On this basis, defendant asserts that the Industrial Commission's reliance on the medical opinions of Drs. Mason and Williams was "improper." We disagree. The Industrial Commission's findings of fact included, in pertinent part, the following:

1. Plaintiff, born January 5, 1945, has a seventh grade education. Plaintiff was employed by the City of Raleigh as an auto body repairman between November 5, 1975 and May 3, 1996. Plaintiff's job . . . included . . . painting of all or portions of the vehicles.
2. Plaintiff was in good health and had no breathing problems when he began working for defendant. . . .
3. The painting room was approximately 40 feet by 60 feet[.] . . . The only ventilation in the paint booth when Plaintiff began work with defendant was "a big stack going up through

the roof like a chimney." Plaintiff would use a paint gun that . . . "just blows the paint."

4. Plaintiff painted approximately two cars per week. Each car would require three coats of paint with each coat taking approximately 20 to 30 minutes to apply. . . .

5. . . . [B]etween 1975 and 1981, painting would sometimes be done in the body shop[.] . . . There was no ventilation in the body shop area until sometime in 1981 or 1982 . . .

6. Plaintiff wore a mask that covered the nose and mouth when painting. Plaintiff testified to having continuous trouble with the mask slipping around his nose and allowing the paint fumes to enter the mask. . . .

7. Plaintiff also had exposure to the paint on the remainder of the face that was not covered by the mask. In the summer months . . . plaintiff would work in short-sleeve shirts which left his hands and arms exposed to the paint. . . .

8. Plaintiff was exposed to paints and solvents, including DXR80, a urethane hardener made by PPG which mixes with the paint to make it harder and more durable. Plaintiff also used Sherwin-Williams product V6V241, a medium solids hardener.

9. . . . In 1995, defendant provided a full-face mask that supplied fresh air while you paint.

10. Plaintiff first noticed he was having memory problems in 1988 or 1989[.] . . . Plaintiff's wife testified that plaintiff had never had breathing problems prior to working with defendant and that plaintiff began to get forgetful and confused at times in the early 1980's. . . . [S]he could tell when he had been painting at work by the paint smell on his clothes and the smell of paint fumes on his breath when he exhaled. Plaintiff would have a foggy blue tint from the paint across the bridge of his nose and all over his hands and arms when he came home from . . . painting cars.

11. Dr. Mason testified, and the Full Commission finds as fact, that diisocyanate compounds . . . can be absorbed through the skin as well as be inhaled, resulting in direct injury to the lungs and can cause damage to target organs such as the central nervous system and brain. . . .

12. The central nervous system serves as a

short-term immediate repository for these materials and quite high concentrations can be reached on an acute administration according to Dr. Mason. The paint sprayed by plaintiff was in aerosol form, which means the material is still in liquid form[.] . . . These particles or droplets contain very high concentrations of the product itself.

13. The Material Safety Data Sheets referenced [in] Dr. Freedman's deposition and in the Duke University Medical Center records for the product called DXR-80, which plaintiff was exposed to, indicate: Inhalation. Vapor and spray mist harmful if inhaled. . . . Vapor irritates eyes, nose and throat. Repeated exposure to high concentrations may cause irritation of the respiratory system and permanent brain and systemic damage.

14. Dr. Mason testified, and the Full Commission finds as fact, that damage from severe and acute exposures to the diisocyanates may manifest acute effects even though they may not be immediately apparent and there may be low-level exposures on a continuing basis with chronic effects occurring long after the initial exposure.

15. Plaintiff was seen at Duke University Medical Center by Dr. Saltzman, a pulmonary specialist. . . . Dr. Saltzman instructed plaintiff not to work around isocyanates.

16. Encephalopathy is a disorder of brain function and toxic encephalopathy is due to external toxins in the environment[.] . . . [S]ymptoms of an external toxic encephalopathy condition would be decreased concentration, excitability, various motor and sensory disturbances, . . . [and] behavioral and psychological changes in personality and irritability. These symptoms result from toxins getting into the body fat from inhalation, contact through the skin, or ingestion.

17. There are three types of toxic encephalopathy. . . . Type three results from significant exposure over a long period of time and includes behavioral and cognitive changes as well as abnormalities seen on neuroimaging studies. Type three is irreversible. Dr. Williams testified, and the Full Commission finds as fact, that plaintiff has type three toxic encephalopathy with irreversible neurobehavioral symptoms[.] . . .

18. Dr. Mark E. Williams further testified, and the Full Commission finds as fact, that plaintiff's changes in cognitive function and behavior were caused by his repeated exposure to diisocyanate and other potentially toxic chemicals in his employment with defendant.

19. Dr. Williams cited several bases for his opinion including plaintiff's history of extensive exposure to solvents without suitable protection; his pattern of illness, including changes of memory and cognitive function, behavior changes, and increasing isolation and suspicion; plaintiff's [other] symptoms that are consistent with exposure, such as lung disease and respiratory illnesses; and plaintiff's dementia, which was clearly different from . . . Alzheimer's disease. . . .

20. Dr. Mason and Dr. Williams testified, and the Full Commission finds as fact, that plaintiff's exposures to solvents in his workplace placed him at an increased risk of developing his disease as compared to the public in general.

. . .
23. The Full Commission places more weight on the testimony of Dr. Williams and Dr. Mason than that of Dr. Freedman and Dr. Allen Hayes.

. . .
24. Plaintiff's job with defendant placed him at an increased risk of developing toxic encephalopathy as compared to the public in general and his condition is due to causes and conditions characteristic of and peculiar to his employment and is not an ordinary disease of life to which the public is equally exposed. The chemical exposures plaintiff was subjected to in his employment with defendant caused him to develop toxic encephalopathy resulting in loss of cognitive functioning and behavioral changes.

Based on these findings, the Industrial Commission concluded that:

1. Plaintiff's toxic encephalopathy was caused by and due to causes and conditions characteristic of and peculiar to plaintiff's employment with defendant. Plaintiff's toxic encephalopathy is not an ordinary disease of life to which the general public not so employed is equally exposed, and is, therefore, an occupational disease. N.C. Gen.

Stat. 97-53(13).

2. Plaintiff's lung disease and dementia were caused, or significantly contributed to, by his exposure to diisocyanates and other chemicals during his employment with defendant.

We have carefully reviewed the record and conclude that each of these findings is supported by evidence in the record. We further conclude that these findings of fact adequately establish the Commission's conclusions of law.

Plaintiff was required to show "that the substance [to which he was exposed] is one to which the worker has a greater exposure on the job than does the public generally, either because of the nature of the substance itself or because the concentrations of the substance in the workplace are greater than concentrations to which the public generally is exposed." *Caulder v. Waverly Mills*, 314 N.C. 70, 75, 331 S.E.2d 646, 649 (1985) (worker's exposure to dust from synthetic fibers). However, plaintiff is not required to prove that he was exposed to a specific quantity of paint fumes or chemicals. Indeed, "[o]ur Supreme Court rejected the requirement that an employee quantify the degree of exposure to the harmful agent during his employment." *Keel*, 107 N.C. App. at 541, 421 S.E.2d at 366 (citing *McCuiston v. Addressograph-Multigraph Corp.*, 308 N.C. 665, 668, 303 S.E.2d 795, 797 (1983) ("unreasonable to assume that the legislature intended an employee to . . . [take] measurements during his employment in order to lay the groundwork for a workers' compensation claim"), and *Gay*, 79 N.C. App. at 334, 339 S.E.2d at 496 (plaintiff not required to document concentration of toxic compounds in dye, as it "would be impossible for plaintiff

to obtain measurements of the levels of toxic substances"))). In the instant case, the evidence easily supports the Industrial Commission's finding that plaintiff had a greater exposure to isocyanates and other toxic chemicals than does the general non-spraypainting public.

We also reject defendant's argument that the medical opinions of Drs. Williams and Mason were necessarily based upon an "overstatement" of plaintiff's exposure to isocyanate and other chemicals released during autobody spray painting. Plaintiff testified several times that he had painted an average of two cars a week for 21 years, and elaborated on the number of coats of paint and the drying time for each coat of paint. Defendant's argument that the medical experts relied upon an inaccurate estimate of plaintiff's exposure to paint fumes is based upon defendant's contention that plaintiff's co-worker Vernon Cummings "did about 60 to 70%" of the painting. However, the transcript does not include such a statement; moreover, to the extent that the evidence raised factual conflicts, these were for the Industrial Commission to resolve. *Deese*, 352 N.C. 109, 530 S.E.2d 549. The record contains competent evidence of the amount of exposure posited in the hypothetical questions answered by Drs. Mason and Williams (that plaintiff spray painted an average of two cars a week); reliance upon this estimate was not improper. Thus, "we think the hypothetical questions assume facts which the evidence directly, fairly and reasonably tends to establish, and were competent. The probative force was for the Commission." *Blassingame v. Asbestos*

Co., 217 N.C. 223, 236, 7 S.E.2d 478, 486 (1940). Moreover, "omission of a material fact from a hypothetical question does not necessarily render the question objectionable or the answer incompetent. It is left to the cross-examiner to bring out facts supported by the evidence that have been omitted and thereby determine if their inclusion would cause the expert to modify or reject his earlier opinion." *Rutledge*, 308 N.C. at 91, 301 S.E.2d at 364.

We also note that in addition to expert testimony, evidence was introduced regarding the size of the painting room, the lack of ventilation, inadequacy of masks or other protection, and the nature of the chemicals involved. Plaintiff's wife testified concerning plaintiff's appearance and odor following "painting days" at work, and about his gradual physical and mental decline during his period of exposure. The record also includes medical evidence regarding the biological mechanism whereby paint fumes may cause toxic encephalopathy, and evidence that the disease may be caused by chronic or long-term exposure to relatively low amounts of isocyanates.

Defendant also argues that the Industrial Commission's opinion must be reversed on the grounds that the medical opinions offered by Drs. Mason and Williams were "not adequately supported by medical literature." Defendant relies heavily on *Beaver v. City of Salisbury*, 130 N.C. App. 417, 502 S.E.2d 885 (1998), *disc. review dismissed as improvidently granted*, 349 N.C. 351, 514 S.E.2d 89 (1999), to support the argument that plaintiff's compensation is

dependent upon corroboration by medical literature showing a causal relationship between exposure to isocyanates and toxic encephalopathy. In *Beaver* the plaintiff-firefighter argued that his lymphoma was an occupational disease caused by exposure to carcinogens found in smoke. However, he did not establish what toxins or carcinogens the smoke had exposed him to. Additionally, the plaintiff had no outward symptoms that would have enabled witnesses to link his employment to the chronology of his disease. In this context, the absence of medical literature tending to establish that his employment exposed him to a greater risk than the general public may well have been fatal; however, the case does not stand for the proposition that plaintiff is always required to produce medical articles at a hearing in order to establish that he has suffered from an occupational disease. We conclude that the facts of *Beaver* are easily distinguished from the present case. In the instant case, there was competent evidence of the toxins to which plaintiff was exposed, the dangers posed by these particular chemicals, and the extent of plaintiff's exposure. Moreover, in the instant case there was testimony regarding relevant medical literature: Dr. Williams testified there wasn't "any question" that it is "well-documented in the literature that toxic substances like solvents can cause toxic encephalopathy." He testified further that this connection had been known for "at least 100 years" and that "there have been a number of studies from a variety of settings and in a number of foreign countries, and they all point to the same conclusion." On cross-examination Dr. Williams

testified that he had reviewed some of this literature while he was treating plaintiff in order to confirm his diagnosis. In addition, Dr. Mason testified about the specific chemicals to which plaintiff was exposed, and the medical and scientific literature that he had reviewed regarding these chemicals. Further, plaintiff experienced progressive symptoms which corresponded with his period of employment.

We conclude that the evidence regarding plaintiff's exposure to isocyanates and other chemicals was sufficient to support the Industrial Commission's findings and its conclusion that this exposure caused or substantially contributed to his toxic encephalopathy. This assignment of error is overruled.

Defendant argues next that there was "no competent medical evidence" that plaintiff's exposure to workplace chemicals caused or significantly contributed to his lung disease. We disagree.

As discussed above, the plaintiff was required to prove by the preponderance of the evidence that:

(1) [the disease is] characteristic of persons engaged in the particular trade or occupation in which the claimant is engaged; (2) [the disease is] not an ordinary disease of life to which the public generally is equally exposed with those engaged in that particular trade or occupation; and (3) there must be a "causal connection between the disease and the [claimant's] employment."

Rutledge, 308 N.C. at 93, 301 S.E.2d at 365 (quoting *Hansel*, 304 N.C. at 52, 283 S.E.2d at 106). The first two elements, which address the relationship between plaintiff's employment and his

risk of contracting the disease, may be met by proof that "'the employment exposed the worker to a greater risk of contracting the disease than the public generally.'" *Robbins*, 151 N.C. App. at 521, 566 S.E.2d at 141-42 (quoting *Rutledge*, 308 N.C. at 94, 301 S.E.2d at 365). In order to prove that his employment exposed him to a greater risk of the disease than the general public, the plaintiff must establish (1) that his employment exposed him to some circumstance, agent, or substance to a greater extent than the exposure experienced by the general public, and (2) that the agent to which plaintiff had a greater exposure is a cause of the disease from which plaintiff suffers. See *Cialino v. Wal-Mart Stores*, 156 N.C. App. 463, 475, 577 S.E.2d 345, 354 (2003) (upholding award where "Commission was presented with competent evidence that [claimant] was exposed to disease causing [agent] while working for [employer]"); *Poole v. Tammy Lynn Ctr.*, 151 N.C. App. 668, 674, 566 S.E.2d 839, 843 (2002) (proof of occupational disease requires "proof of exposure 'to the disease or disease-causing agents during employment'" (quoting *Booker*, 297 N.C. at 476, 256 S.E.2d at 200)). In the instant case, it is beyond dispute that plaintiff demonstrated a greater exposure than the general public to isocyanates and other toxic chemicals released during spraypainting. To establish that exposure to isocyanates and other chemicals in paint fumes placed plaintiff at a greater risk than the general public of developing lung disease, plaintiff was required to present competent medical evidence. See *Norris v. Drexel Heritage Furnishings, Inc.*, 139 N.C. App. 620, 623, 534

S.E.2d 259, 262 (2000) ("findings regarding the nature of a disease its characteristics, symptoms, and manifestations - must ordinarily be based upon expert medical testimony"), *cert. denied*, 353 N.C. 378, 547 S.E.2d 15 (2001). In this regard, we note the following pertinent evidence and findings of fact:

11. Dr. Mason testified, and the Full Commission finds as fact, that diisocyanate compounds . . . can be . . . inhaled, resulting in direct injury to the lungs. . . .

13. The Material Safety Data Sheets referenced [in] Dr. Freedman's deposition and in the Duke University Medical Center records for the product called DXR-80, which plaintiff was exposed to, indicate: Inhalation. Vapor and spray mist harmful if inhaled. May cause irritation and/or allergic respiratory reaction in lungs. Vapor irritates eyes, nose and throat. Repeated exposure to high concentrations may cause irritation of the respiratory system. . . .

15. Plaintiff was seen at Duke University Medical Center by Dr. Saltzman, a pulmonary specialist. Dr. Saltzman assessed plaintiff with . . . Isocyanate precipitation of aggravation of asthma. Dr. Saltzman instructed plaintiff not to work around isocyanates.

19. Dr. Williams cited several bases for his opinion including . . . plaintiff's symptoms that are consistent with exposure such as lung disease and respiratory illnesses. . . .

We conclude that plaintiff presented competent medical evidence that his employment placed him at a greater risk of developing lung disease than the general public.

In addition to establishing the generalized connection between his employment and a greater risk of lung disease, plaintiff was also required to prove that in his particular case exposure to

isocyanates and other toxic fumes caused or substantially contributed to his lung disease. In this regard, the Industrial Commission was not restricted to consideration of expert medical testimony:

In the case of occupational diseases proof of a causal connection between the disease and the employee's occupation *must of necessity be based on circumstantial evidence*. Among the circumstances which may be considered are the following: (1) the extent of exposure to the disease or disease-causing agents during employment, (2) the extent of exposure outside employment, and (3) absence of the disease prior to the work-related exposure as shown by the employee's medical history.

Booker, 297 N.C. at 476, 256 S.E.2d at 200. Thus, as discussed above:

In determining whether a claimant's exposure to [disease causing agent] has significantly contributed to, or been a significant causative factor in, [his disease], the Commission may, of course, consider medical testimony, but its consideration is not limited to such testimony.

Rutledge, 308 N.C. at 105, 301 S.E.2d at 372.

In the present case, the Industrial Commission made extensive findings of fact establishing (1) that plaintiff was exposed to isocyanates and certain other chemicals released in paint fumes, (2) the mechanism by which long term exposure to even low levels of these chemicals may cause permanent damage to the respiratory system, (3) Dr. Saltzman's medical treatment of plaintiff for respiratory problems and his warning, as early as 1982, that plaintiff should have no further contact with isocyanates, (4) expert medical opinion that plaintiff's exposure to isocyanates and

other chemicals released during spray painting placed him at greater risk of developing "breathing problems," (5) expert medical opinion that plaintiff's lung disease was "consistent with" his exposure to isocyanates, and (6) the absence of any respiratory illness in plaintiff's medical history prior to his employment with defendant. We conclude that the Industrial Commission's findings of fact demonstrate sufficient consideration of "the following circumstances . . . '(1) the extent of exposure . . . during employment, (2) the extent of exposure outside employment, and (3) absence of the disease prior to the work-related exposure as shown by the employee's medical history.'" *Cialino*, 156 N.C. App. at 475, 577 S.E.2d at 354 (quoting *Booker*, 297 N.C. at 475, 256 S.E.2d at 200).

Defendant also asserts that the Industrial Commission should have made findings in accordance with Dr. Hayes' testimony that plaintiff suffered from bronchial asthma with hyperactivity, which Dr. Hayes believed was *not* caused by exposure to isocyanates or other toxic paint fumes and vapors. However, "it is well established in this jurisdiction that the Commission may accept or reject the testimony of a witness, either in whole or in part, depending solely upon whether it believes or disbelieves the witness." *Taylor v. Cone Mills*, 306 N.C. 314, 323, 293 S.E.2d 189, 195 (1982). The Commission was thus free to believe Dr. Hayes' diagnosis while rejecting his opinion on causation and, as discussed above, "where the evidence is conflicting, the Commission's finding of causal connection between the [toxic agent]

and the disability is conclusive." *Anderson*, 265 N.C. at 434, 144 S.E.2d at 275.

We conclude that the record evidence and the Industrial Commission's findings of fact adequately support its conclusion that plaintiff's workplace exposure to isocyanates and other toxic chemicals caused or significantly contributed to his lung disease. This assignment of error is overruled.

Finally, defendant argues that the evidence was insufficient to support the Commission's findings and conclusion that plaintiff was totally disabled. This argument is without merit.

Under N.C.G.S. § 97-2(9) (2001), disability is an "incapacity because of injury to earn the wages which the employee was receiving at the time of injury in the same or any other employment." Our Supreme Court has consistently held that:

"In order to support a conclusion of disability, the Commission must find: (1) [] plaintiff was incapable . . . of earning the same wages [he] had earned before [his illness] in the same employment, (2) [] plaintiff was incapable . . . of earning the same wages . . . in any other employment, and (3) [] plaintiff's incapacity to earn was caused by plaintiff's [illness]."

Cialino, 156 N.C. App. at 476, 577 S.E.2d at 354 (quoting *Hilliard v. Apex Cabinet Co.*, 305 N.C. 593, 594, 290 S.E.2d 682, 683 (1982)). "Initially, the claimant must prove the extent and degree of his disability. On the other hand, once the disability is proven, there is a presumption that it continues until 'the employee returns to work at wages equal to those he was receiving

at the time his injury occurred.'" *Watson*, 92 N.C. App. at 475-76, 374 S.E.2d at 485 (quoting *Watkins v. Motor Lines*, 279 N.C. 132, 137, 181 S.E.2d 588, 592 (1971)).

In the instant case, the Industrial Commission's finding of fact included, in relevant part, the following:

1. Plaintiff, born January 5, 1945, has a seventh grade education. Plaintiff was employed by [defendant] . . . between November 5, 1975 and May 3, 1996. . . .

21. Dr. Williams found, and the Full Commission finds as fact, that plaintiff was totally disabled and that the damage to plaintiff's nervous system is permanent and could progress some as plaintiff ages. . . . He went on to say that plaintiff may require additional supervision as the symptoms progress.

22. Stephen Carpenter, a rehabilitation counselor, found plaintiff to be totally disabled and unemployable since May of 1996. Mr. Carpenter said trying to place plaintiff in a job would be a waste of time because of the severe loss of cognitive function. Plaintiff did poorly on reading, spelling, and mathematical testing with results in the range level of a fourth and fifth grader. Plaintiff is marginally to functionally illiterate and just based on age and education, plaintiff has significant vocational loss. Plaintiff's biggest impairment to employability is his loss of mental function capacity and inability to sustain concentration and attention necessary for working a normal eight-hour day.

We conclude that these finding of fact are based on competent evidence in the record and that they support the Industrial Commission's conclusion that plaintiff was permanently and totally disabled. See, e.g., *Rivera v. Trapp*, 135 N.C. App. 296, 303, 519 S.E.2d 777, 781 (1999) (award of total disability upheld where evidence showed plaintiff could not lift heavy objects and that his

"limited ability to understand English, coupled with his exclusive background in construction work" made him relatively unemployable); *Adams v. Kelly Springfield Tire Co.*, 123 N.C. App. 681, 684, 474 S.E.2d 793, 796 (1996) (upholding disability award where "most employment would be futile due to plaintiff's . . . lack of education, manic depressive disorder, [and] limitations on lifting due to his back"). Plaintiff herein is similarly limited by lack of education, neurological and cognitive damage, and inability to sustain the degree of attention necessary to hold a job.

Defendant argues that plaintiff must prove his disability with *medical* evidence. However, "this Court has approved methods of proof other than medical evidence to show that an employee has lost wage earning capacity, and is therefore, entitled to total disability benefits." *Bridwell v. Golden Corral Steak House*, 149 N.C. App. 338, 343, 561 S.E.2d 298, 302, *disc. review denied*, 355 N.C. 747, 565 S.E.2d 193 (2002). Moreover, the record contains competent testimony by Dr. Williams to the effect that plaintiff is totally disabled.

We conclude that the Industrial Commission did not err by concluding that plaintiff was permanently and totally disabled. This assignment of error is overruled.

For the reasons discussed above, the Opinion and Award of the Industrial Commission is

Affirmed.

Judges WYNN and TYSON concur.