

IN THE COURT OF APPEALS OF TENNESSEE
AT KNOXVILLE
May 14, 2004 Session

DERON A. HATTON v. CSX TRANSPORTATION, INC.

**Appeal from the Circuit Court for Hamilton County
No. 00-C-247 W. Neill Thomas III, Judge**

No. E2003-01831-COA-R3-CV - FILED JUNE 29, 2004

This is a an action for damages under FELA wherein the Plaintiff claimed that he was negligently exposed to toxic chemicals in the workplace. The Defendant pleaded, *inter alia*, the defense of the three-year statute of limitations, to which the discovery rule was applicable. This issue was bifurcated and tried separately, to the same jury, which found in favor of the Plaintiff. On the issues of liability, causation, and damages [the second phase of the trial] the jury found in favor of the Defendant. Plaintiff appeals, claiming that the issue of the statute of limitation should not have been bifurcated, that the court should have directed a verdict for the Plaintiff on account of OSHA violations, and the exclusion-admission of expert testimony. Finding no error, the judgment is affirmed.

Tenn. R. App. P. 3 Appeal as of Right; Judgment of the Circuit Court Affirmed

WILLIAM H. INMAN, SR. J., delivered the opinion of the court, in which CHARLES D. SUSANO, JR., and D. MICHAEL SWINEY, JJ., joined.

Patrick S. O'Brien and Jeffrey E. Chod, St. Louis, Missouri; Richard L. Widerkehr, Chattanooga, Tennessee, attorneys for appellant, Deron A. Hatton.

Gareth S. Aden and Christopher W. Cardwell, Nashville, Tennessee, attorneys for appellee, CSX Transportation, Inc.

OPINION

The Case

This is an action for damages under the Federal Employers' Liability Act, 45 U.S.C. § 51, et. seq. (FELA). Plaintiff claimed brain injury and damage from occupational exposure to organic solvents during his employment by Defendant CSX Transportation, Inc. ("CSXT" or Defendant). The trial court ordered the issue of CSXT's defense of the statute of limitations bifurcated for trial.

The jury returned a verdict in favor of Plaintiff on the statute of limitations issue in the first phase. The second phase of the trial involved the issues of liability, causation and damages. The jury returned a verdict in favor of CSXT on all of these issues and judgment was entered accordingly. Plaintiff filed a timely motion for new trial which was denied. This appeal followed.

The Issues

As propounded by the Plaintiff, the issues are:

- I. Whether the trial court erred in refusing to instruct the jury on future loss of earning capacity or future wage loss as an element of injury and damages, and in prohibiting Plaintiff from arguing future loss of earning capacity or future wage loss as an element of injury and damages in his argument to the jury, because the evidence at trial established that Plaintiff was reasonably certain to sustain future wage loss.
- II. Whether the trial court erred in ordering, over Plaintiff's objection, a bifurcation of the trial of this action into two separate trials: one trial concerning Defendant's defense based upon the statute of limitations, and a second trial on all other issues of liability and damages.
- III. Whether the trial court erred in denying Plaintiff's motion for a directed verdict on the issue of CSXT's negligence at the close of all of the evidence in the second (liability and damages) phase of the trial, and in failing to set aside the verdict as against the weight of the evidence as to negligence, because the uncontroverted evidence at trial demonstrated that CSXT violated applicable OSHA regulations, that Plaintiff was not fitted with or trained to use a respirator, that Plaintiff was never warned concerning organic solvents, and that CSXT violated its own rules concerning solvent exposure that required the use of a forced air respirator for spraying.
- IV. Whether the trial court erred in granting Defendant's Motion in Limine to exclude the testimony of Richard Lipsey, in that Dr. Lipsey's testimony was properly admissible.
- V. Whether the trial court erred in denying Plaintiff's Motion in Limine to exclude the testimony of Dr. Robert Granacher, and in permitting Dr. Granacher to testify at trial over Plaintiff's objection, in that his testimony was not properly admissible under Rule 702 and Rule 703, Tennessee Rules of Evidence.

The Defendant presents the issue of whether its motion for a directed verdict in the first phase of the trial should have been granted, which we pretermitted as unnecessary for a resolution of this case except for a parenthetical reference.

The Standard of Review

The standard for review of a jury verdict is whether there is material evidence to support the verdict. In making this determination, the court is required to take the strongest legitimate view of all the evidence in favor of the verdict, to assume the truth of the evidence in support thereof, allowing all reasonable inferences to sustain the verdict and to disregard all evidence to the contrary. No rule of practice is better settled in Tennessee or more inflexible than that the verdict of a jury, satisfactory to the circuit judge in a civil case, where there is conflicting evidence, will not be disturbed or set aside if there is any material legal evidence to sustain it, there being no other error, i.e., upon the facts alone. Rule 13(d) Tenn. R. App. P.; *Overton v. Davis*, 739 S.W.2d 2 (Tenn. Ct. App. 1987); *Grissom v. Metro. Govt.*, 817 S.W.2d 679 (Tenn. Ct. App. 1991); *Moss v. Sankey*, 54 S.W.3d 296 (Tenn. Ct. App. 2001). Appellate courts do not weigh the evidence in appeals from jury verdicts, and if some material and substantial evidence supports the verdict, it must be affirmed. *Memphis v. Bettis*, 512 S.W.2d 270 (Tenn. 1974); *Chumbler v. McClure*, 505 F.2d 489 (6th Cir. Tenn. 1974). Neither may the appellate court ascertain whether the verdict is supported by a preponderance of the evidence because conflicts of testimony are issues for the jury to resolve. *Thayer v. Wright Co.*, 362 S.W.2d 805 (Tenn. Ct. App. 1961); *Bynum v. Hollowell*, 656 S.W.2d 400 (Tenn. Ct. App. 1983). The Plaintiff does not assail the weight or quantum of the evidence. The refusal of the court to charge the jury respecting the Plaintiff's asserted loss of future earning capacity requires an in-depth recitation of the proof.

Evidence For the Plaintiff

Plaintiff was employed by the Defendant upon his graduation from high school at the Defendant's Cumberland, Maryland facility. Five years later, in 1985, he became a journeyman electrician; this work involved the maintenance and repair of locomotives.

A solvent known as C-13, which contained a combination of 75% 1,1,1 trichloroethane, and 25% perchloroethylene, or a combination of 1,1,1 trichloroethane and mineral spirits, was used at Defendant's Cumberland facility as a cleaner for locomotive generators, traction motors, electrical cabinets, and other locomotive components, wiring and electrical parts which accumulated grease. C-13 was sprayed on these parts and components to clean them. Plaintiff testified that he sprayed C-13 as both an apprentice and a journeyman electrician *during the 1980's*. A pump would be placed in a drum of C-13, with a hose and wand to use in spraying.

C-13 was an effective cleaner with a noxious odor. Workers using C-13 would sometimes have to leave the work area, get some fresh air, and then resume work. One worker testified that breathing C-13 would burn one's throat and lungs. Employees have passed out while spraying C-13. One employee testified that he and two other workers were overcome while using C-13, even though

he was wearing a canister style respirator at the time, and that he had to be taken to the hospital for treatment.

C-13 would sometimes be poured on the floor in the shop from gallon jugs and then wiped up with a rag in order to clean or remove grease spots from the shop floor. Additionally, workers would also use C-13 to clean their tools, to clean and remove grease from their clothing, and would spray or dip their hands in C-13 to clean their hands.

It is undisputed that C-13 spraying occurred outside at both the east and west ends of the shops. There was also testimony that spraying would occur inside the shop and the roundhouse, and that it would be necessary to spray in confined areas inside the locomotives in order to clean those parts and areas.

With respect to breathing protection for the workers, there was testimony that there were dust masks in the Cumberland facility, similar to a painter's mask. There were some cartridge type or Willson respirators. Although there was testimony that these respirators were readily available, if requested by an employee, one employee testified that they were available, maybe only half the time, and that they were worthless. The Plaintiff testified that he was unaware that there was any breathing protection at the Cumberland facility at all.

Except for one man, the workers who used C-13 testified they never used any kind of breathing protection when working with C-13 and that supervisors had themselves sprayed C-13 without any breathing protection. The supervisors never said anything to Plaintiff or the other workers about spraying C-13 without breathing protection and CSXT never reprimanded or disciplined any of the workers, including Plaintiff, for spraying C-13 without breathing protection. Supervisors also observed workers using C-13 to clean the floor and their tools, clothes and hands and never said anything to the workers.

According to the Defendant's internal correspondence, C-13 was not replaced as a cleaner until 1988. Plaintiff testified that his use of C-13 ceased in the 80's but another employee testified that C-13 was still in Cumberland in the late 80's or early 90's.

Internal documents produced by CSXT, such as the Locomotive Maintenance and Procedures Manual, provide that approved respirators must be worn when using this substance, along with safety goggles, because the vapor is harmful. The Manual also provides that spraying equipment should emit a solid stream, workers should eliminate unnecessary spillage and minimize exposure duration, the operator and other employees in the vicinity should be protected by direct fresh air equipment, and that those with mild exposure at a distance from the operation should use a Willson cartridge type respirator.

The Material Safety Data Sheet (MSDS) for C-13 (also known as Dowclene) from 1980 provides that approved respiratory protection should be worn when using C-13 in the absence of approved environmental controls, that workers should avoid breathing the vapors and should avoid

repeated and prolonged skin contact, and should also wear eye protection. Workers are not to enter confined areas where C-13 vapor could collect without special breathing apparatus.

Internal documents from the railroad indicated that respirator test programs were to be started on CSX's Raceland Car and Huntington Car shops in 1982 but not at Cumberland. As of the end of 1983, a respirator program had been implemented at some locations but not at Cumberland.

Robert Hansrote, the employee safety coordinator at Cumberland from 1982 to 1987, testified that the railroad never made him aware that respiratory protection should be used when spraying C-13 or that the vapor was harmful, or that it should not be used on surfaces exceeding 300 degrees F, or that spraying equipment should emit only a solid stream of liquid, eliminate unnecessary spillage or minimize exposure duration, or that employees in the immediate vicinity should be protected against vapor inhalation by use of direct fresh air equipment. He had not been made aware of OSHA regulations concerning respiratory protection, and was not aware of any respiratory program at Cumberland from 1982-87 that met OSHA's minimal requirements for a respirator program. Hansrote testified that had he been aware of the matter he would have made sure that the men wore respirators, and would have prevented them from using C-13 to clean tools.

Plaintiff testified that he worked with C-13 during his apprenticeship, and after he became a journeyman electrician. The generators and traction motors would be removed from the locomotive for spraying. They were as large as the "round part of a VW bug." Spraying was done both outside and inside the shop and inside the roundhouse as well as in confined areas in the locomotive.

The amount of time Plaintiff spent spraying C-13 varied from two to four times a week but usually not longer than two hours. Plaintiff estimated that he spent about 30% of his work time in the 80's spraying C-13. Spraying for an hour and half would consume half of a 55 gallon drum and there were situations when a very dirty generator would take more than a 55 gallon drum. He did not use and was never told to use respiratory protection, and his supervisors saw him spray without respiratory protection and never said anything to him about it.

Around 1996, Plaintiff became concerned that he was having a hard time remembering events that occurred five or ten minutes, or an hour, before. He saw Dr. Stephen Crossland, a general practitioner, in December 1996, complaining of mood swings. Dr. Crossland reported that the Plaintiff became upset easier, was more vociferous and more easily upset at work. He and his wife had noted memory loss, that he forgot people coming for dinner, forgot things when he went on errands, and forgot things when doing a job. He felt he had to double check himself at work. Dr. Crossland had previously seen 30 to 40 railroad workers from Cumberland with solvent exposure and the intake history obtained by his nurse also indicated chemical exposure. He gave Plaintiff a physical exam and also administered a simple memory test of recall of numbers. Dr. Crossland noted that he had slow recall on numbers, missing two out of four. His physical exam revealed some tenderness in the right shoulder but no hard physical signs of anything going on neurologically. He told Plaintiff he would need to have blood work to determine whether there was some metabolic

problem such as diabetes, thyroid disease, anemia or other condition that might be responsible for his memory loss. He also indicated that Plaintiff would be referred to an occupational specialist, Dr. Ducatman, to see him concerning his history of solvent exposure.

Dr. Mark Alan Ducatman, M.D., is a professor of medicine, a professor of community medicine and chair of the Department of Community Medicine at West Virginia University. He has a bachelors degree in analytic biology from Columbia University in New York, a master of science from the City University of New York and completed medical school at Wayne State University. He had a one-year residency at Brown University and a continued residency at the Mayo Clinic in internal medicine and a fellowship in occupational medicine. He received environmental health training from the City University in New York, and a year and a half of training at the Mayo Clinic in occupational medicine. He is board certified in both internal and occupational medicine. He has done research and has published articles on solvent exposure among industrial workers.

He first saw Plaintiff on February 21, 1997. At that time, Plaintiff was concerned about his memory, with getting angry and having a hard time getting along with family members and others, and difficulty in concentrating. He obtained Plaintiff's history of solvent exposure that was also consistent with solvent exposure histories obtained from other railroad workers he has seen. He performed a physical examination and noted that Plaintiff did not do well on formal memory testing and referred him for formal testing to a neuropsychologist, Dr. Marc Haut.

Dr. Haut has a Ph.D. in clinical psychology and is board certified in clinical neuropsychology. When he first saw Plaintiff he had already seen 20 to 50 rail workers with alleged solvent exposure, and has since seen 200 to 300 more. He did not find cognitive deficits in every rail worker he has seen for solvent exposure. Three fourths showed cognitive deficits, and of those, in only half or less than half could he say with a reasonable degree of certainty that the deficits were caused by their solvent exposure. Dr. Haut obtained from Plaintiff his history of exposure and testified that his history of exposure adversely affected his cognitive functioning.

Dr. Crossland referred the Plaintiff to Dr. Naresh Gupta for a PET scan on May 30, 1997. Dr. Gupta is board certified in nuclear medicine and nuclear cardiology, and his fellowship at the University of Pennsylvania was specifically in PET scanning. Plaintiff's PET scan was abnormal in that it showed decreased glucose uptake in both temporal lobes as well as in the cerebellar hemispheres. Dr. Gupta indicated in his report that these were non-specific findings and that the "differential diagnosis might include depression, toxic or hypoxic encephalopathy or closed head injury." Dr. Gupta's opinion was that this scan conforms to a pattern seen in patients due to toxic encephalopathy.

In accordance with the recommendation he received from Dr. Ducatman and Dr. Haut to start Plaintiff on a SSRI, Dr. Crossland referred the Plaintiff again, this time to Dr. Jordan Garber, M.D., a psychiatrist, in September 1998.

Dr. Garber is a clinical professor of psychiatry at the Medical College of Pennsylvania, Hahnemann University School of Medicine, and assistant professor at the University of Pittsburgh School of Medicine. He is board certified in psychiatry and geriatric psychiatry, and has taught extensively. In his subspecialty, neuropsychiatry, in which he spends most of his time, he treats and evaluates patients with any number of neurologically based problems. He has seen patients with problems due to solvent exposure in the workplace.

Dr. Garber then referred Plaintiff to Dr. Lisa Morrow for neuropsychological testing. She is an associate professor in the department of psychiatry at the University of Pittsburgh School of Medicine. She is licensed as a psychologist in the state of Pennsylvania and is board certified in neuropsychology which is the specialty within psychology dealing with the relationship between the brain and behavior. She assesses patients to determine whether they have a brain injury and, if so, the cause of the injury and possibly the location in the brain of the injury.

Dr. Morrow saw Plaintiff for a clinical assessment at the request of Dr. Garber. Based upon Plaintiff's history and treatment, and her testing, Dr. Morrow testified that the deficits she noted in her neuropsychological testing were caused by his exposure to organic solvents on the railroad. She thought that this is the most likely explanation because Plaintiff's history does not reflect any other explanation that would cause these losses and function for a thirty-seven-year-old person, such as previous head injury, stroke, epilepsy, multiple sclerosis or any of the other factors that may alter performance on such tests. The pattern of mood disorder and cognitive impairments fits the pattern related to solvent exposure they have seen in all of their research. According to Dr. Morrow, the cognitive deficits she identified will affect the Plaintiff who will have difficulty when he is trying to do something new, when he is asked to do a task that is unfamiliar, when he has to learn something new, when he has to do something quickly where there is time element, or if he has to do two things at one time. A person with these deficits will become anxious and nervous because they are having difficulty, which exacerbates the problem. They will not have much difficulty if they are allowed to do just rote things, things they have always done. If the task is more complicated, and it is something they didn't already know and haven't done before, they may be able to learn it but it may take longer and they make more mistakes. Things in rote memory do not fall off as quickly. Working memory and spatial visual memory are the areas that are giving him more difficulty.

Dr. Garber proscribed a medication regime that would give Plaintiff some relief with respect to his mood disorders. Plaintiff eventually decided to see yet another doctor, Dr. Byrd in Morgantown, West Virginia. Plaintiff testified that the medications he now receives from Dr. Byrd controlled his mood swings and depression, and he is presently functioning on his job.

Plaintiff has continued to work and agreed that as far as he knew, he had not misrepaired any locomotives. He also agreed that he and his wife own a small 35 acre farm where they live and have seven head of cattle, and that he operates a tractor and does the work on the farm. He rides a motorcycle to and from work.

Evidence For the Defendant

Plaintiff became a journeyman electrician in 1985 and still works for CSXT at the Cumberland Shops. He testified that he hopes to “retire on the railroad” when he is sixty years old and that he enjoys his job.

During the early years of his employment at CSXT, Plaintiff was exposed to a chemical solvent known as C-13, that was “a good cleaner” used to clean oil from locomotive traction motors and generators. Originally, C-13 consisted of 75% 1,1,1 trichloroethane (“TCA”) and 25% perchloroethylene (PERC”). In 1981, the chemical compound was changed to 30% TCA and 70% mineral spirits. C-13 was removed from the Cumberland shop in the “mid 80's.”

At the Cumberland Shop, C-13 was sprayed on the traction motors and generators outside of the shop, in the ambient air, on either the east or west end “pads,” and occasionally inside the shop during winter and that all of the employees would vacate the area. Another witness for Plaintiff, Gary Morrison, contradicted this testimony, testifying that it was impossible to spray inside because the equipment for spraying was mounted permanently to telephone poles outside the shop. Similarly, the local chairman of Plaintiff’s union, James Burke, who worked as an electrician at CSXT for twenty-seven years, saw C-13 used only outside of the shop, in the ambient air. Tim Yarnall, the general manager of the Cumberland shop and a former electrician, testified that C-13 was not “sprayed anywhere other than on the two pads” and John Felten testified that he “cannot recall one instance whatsoever where C-13 was sprayed inside.

Electricians’ helpers, as opposed to electricians, did most of the spraying of C-13. Similarly, Burke testified that most of the spraying was done by electricians’ helpers who would do the spraying unless “they were on vacation or something like that.” The witness, Morrison, testified that the electricians’ helpers that sprayed C-13 did so outside and “always used a respirator.” Other witnesses testified similarly.

Tucker, another witness called by Plaintiff, testified that CSXT made “chemical respirators” available to its employees. According to him, the employees would request these respirators from the foreman and then pick them up at a window in the storeroom. Tucker, who began working for CSXT in 1952, used one of these respirators when he sprayed C-13. He also testified that the majority of the individuals with whom he worked used respirators when spraying C-13 and specifically identified six gentlemen that he recalled using respirators. Tucker recalls supervisors reprimanding employees for not using respirators.

Another of Plaintiff’s coworkers, Harold Twigg, remembered seeing CSXT employees using respirators while spraying C-13 and recalls that a respirator was always available, hanging in plain view, near the east end pad of the shop where much of the spraying occurred. Twigg claims he obtained a new respirator every time he sprayed C-13.

Yarnall, Tucker and Twigg all recall in their testimony the forced air hood CSXT provided to all of its employees to use while spraying C-13. Twigg testified that this air hood was helpful and believed that all other electricians and electricians' helpers knew about the hood. Both Tucker and Twigg used the hood, but complained because "it was hooked up to house air which was unsanitary."

With reference to the contention of the Plaintiff that CSXT did not provide him with a respirator when he sprayed C-13, Twigg testified that he knows "for a fact" that Plaintiff complained about the adequacy of the respirators provided by CSXT.

At CSXT, working overtime is voluntary and everyone is offered the same opportunity to work overtime. According to Tim Yarnall, Plaintiff "works a lot of overtime." In calendar years 2000, 2001 and 2002, Plaintiff averaged nearly eighty hours of overtime per month. In the two months prior to trial, January and February of 2003, Plaintiff worked 195 hours of overtime. In his department, Plaintiff ranks within the top 100 workers of overtime throughout the entire CSXT system.

One of Plaintiff's most impressive hobbies is breeding and raising pure breed German dogs, without any American lines, and teaching them commands in German. Plaintiff "always wanted to train a dog for a little bit of bite work for protection," so, within the six years prior to trial, he learned certain commands in German, such as "sit or stay or heel or come or jump up or down or lay down and stuff like that. And, of course, bite and stuff like that or whatever." Plaintiff demonstrated his mastery of some of these German commands to the jury.

It is not controverted that working as an electrician is a skilled craft which requires knowledge of electricity and the implements used to gauge electricity. As Dr. Ducatman stated, the railroad is a "very complex environment" and Plaintiff's work involved "very intricate apparatus." James Burke testified that working as a railroad electrician is challenging and that electricians are required to be alert and have the ability to concentrate.

Plaintiff's medical records contain no record of injuries to himself or coworkers while performing his job duties, no record of being reprimanded for poor work on a locomotive, and no history of misrepairing a locomotive.

His doctors report that Plaintiff has the confidence of his coworkers and supervisors, a sentiment shared by those individuals. Doug Henry, another railroad electrician, who retired in 1993, testified that Plaintiff was an "excellent electrician" and that he frequently relied on Plaintiff for advice when repairing locomotives. Another Plaintiff's witness, Robert Hansrote, never heard of Plaintiff misrepairing a locomotive and opined that Plaintiff was "a knowledgeable electrician who served his craft well." Burke testified that no one complained to him about Plaintiff's work product or demeanor and described Plaintiff as "a good man that does a good job for the railroad." Tucker testified that he is not aware "of any locomotives that [Plaintiff] messed up on."

Yarnall, a former electrician, testified that Plaintiff is a “qualified electrician” and that he has never received complaints about the quality of Plaintiff’s work. Yarnall frequently conducts counseling sessions with electricians who misrepair locomotives so that he can explain the financial consequences of the misrepairs to the individuals. It has never been necessary for Yarnall to conduct one of these sessions with Plaintiff.

Plaintiff himself testified that he believes he “can function and operate on the job” and is, in fact, “functioning and operating on the job.” Like his supervisors and coworkers, Plaintiff has no recollection of misrepairing a locomotive and “has never been disciplined for a misrepair.” Plaintiff testified that, due to his injuries, he was not able to do more complex, “troubleshooting” work and, thus, was required to switch to a shift where he performed mainly “maintenance” work. However, on cross examination, Plaintiff admits that he has performed “troubleshooting jobs” in the last “three or four years.” In fact, Plaintiff admits that he held a regular troubleshooting job “up until a couple of years ago when [he] changed over to maintenance.”

Dr. William Waddell, a retired professor from the University of Louisville School of Medicine, gave expert testimony on the specific chemicals that made up C-13, 1,1,1 trichloroethane (“TCA”) and perchloroethylene (“PERC”). He also testified about TLV¹ or safe exposure limit for those chemicals. He opined that neither of these chemicals (TCA or PERC) is neurotoxin, but they are considered central nervous system depressants, like valium, alcohol or other kinds of general anesthetics. This opinion is consistent with the positions taken by OSHA and the American Conference of Governmental Industrial Hygienists (“ACGIH”), the committee that sets the TLVs. As Dr. Waddell testified, the ACGIH’s publications on TCA and PERC make no mention of permanent brain damage.

According to Dr. Waddell,

[t]he only time you get a toxic effect from [TCA and PERC] as with a general anesthetic is if you give enough to depress respiration and they don’t get enough oxygen and then it’s the low oxygen tension that’s going to damage the brain. It’s not from too much of the stuff.

Dr. Waddell testified that “[t]here is no evidence in the scientific literature that [P]laintiff would have suffered any brain damage” unless he was given such a large dose that he was “rendered unconscious” to the point of anoxia.

Dr. Waddell testified that TCA and PERC were used as surgical anesthesia in the 1920s through the 1940s, until it was discovered that they sensitize the heart to epinephrine and can cause

¹ TLV stands for “threshold limit value.” It represents the amount of exposure to a chemical that scientists think a worker can be exposed to safely for eight (8) hours a day, five (5) days a week for forty (40) years, a working lifetime.

liver damage in high doses. “Thousands” of surgeries were performed with these solvents as anesthesia, and there is no record of any resulting brain damage.

Dr. Waddell acknowledges that there can be an “acute effect,” comparable to drinking alcohol, from exposure to TCA and PERC, but that there is no residual effect on the brain after the acute effect is over. The TLVs for these chemicals are set to prevent these acute effects.

Based on his knowledge of the chemicals at issue, and accepting Plaintiff’s deposition testimony regarding his exposure to these chemicals as true, Dr. Waddell opined that there is no way Plaintiff suffered permanent brain damage as a result of his exposures and the Plaintiff “has had no permanent brain effects at all from exposure to these solvents.” On cross-examination, Dr. Waddell opined that CSXT’s use of C-13 was not dangerous or hazardous because there was no evidence of anoxia.

Larry Liukonen, a board-certified industrial hygienist, frequently interprets and relies on OSHA regulations. Based on his understanding of Plaintiff’s claimed exposures, the chemicals at issue, his experience as an industrial hygienist, and his knowledge of the applicable OSHA regulations, Liukonen opined that CSXT provided Plaintiff with a safe workplace.

Liukonen also opined that, pursuant to 29 C.F.R. Section 1910.134, the OSHA statute introduced into evidence by Plaintiff, no respiratory program was necessary at the Cumberland shop because CSXT had adequate engineering controls in place. Liukonen was aware, however, that CSXT did provide its employees in Cumberland with respirators and had done so since 1941. He explained that “[r]espirators are often used for comfort” and that most respirators in the railroad industry are used by individuals who actually do not need them, but prefer to use them.

Additionally, he opined that Plaintiff’s exposure to C-13 did not violate the applicable TLV, and pointed out that the TLV for C-13 was set to “minimize the anesthetic effects” and testified that there is no mention of permanent brain damage caused by this chemical in the literature relied on by the ACGIH.

During the thirteen years preceding the trial of this matter, Plaintiff visited his family doctor, Dr. Beitzel, who considered himself Plaintiff’s “primary care physician” treating general illnesses, more than fifty times. Dr. Beitzel’s records contain no notation of any type of cognitive deficit by Plaintiff. During this time period, Plaintiff did not ask Dr. Beitzel to treat him for depression, problems with sleep, mood swings or irritability, or memory loss.

Dr. Jean Helz, a psychiatrist who treated Plaintiff in October of 1997, “did not note any cognitive dysfunction” in Plaintiff and noted that “[h]is insight and judgment appear to be very good.”

Similarly, Dr. David Oliver-Smith, a neurologist who treated Plaintiff, testified that he performed a mental examination on Plaintiff on February 7, 2001. This examination revealed: (1)

that Plaintiff was awake, alert and fully oriented; (2) that Plaintiff's speech was clear and fluid and (3) that his affect, which is an individual's outward expression of emotion, was appropriate. Additionally, Plaintiff's "short-term and long-term memory at that time were normal," and Dr. Oliver-Smith found "no signs of cognitive dysfunction on this examination."

It is not disputed that Plaintiff, whose family has a history of depression, suffers from depression. In fact, Dr. Jordan Garber admitted Plaintiff to a psychiatric hospital in 2000. Plaintiff checked himself out of the hospital after a few days because of problems with his roommate. Dr. Garber also mentioned "shock treatment" as an option to Plaintiff.

The medicines that doctors have used to treat his depression, mood disturbances and anxiety were referred to as a "dizzying array." Plaintiff candidly responded by stating that "I've tried a list of stuff like you wouldn't believe. I mean, you haven't even heard of all of it." Plaintiff admitted that some of the many medications he takes had an adverse effect on him, sometimes making him "light-headed or dizzy or groggy to where [he] couldn't function."

At the time of trial, Plaintiff was taking Seroquel, Effexor, Lithium and Lithobid. Plaintiff also took Prozac in the past. Additionally, Dr. Garber, at one time, prescribed Plaintiff 60 milligrams of Remeron to assist with his difficulties sleeping. The recommended dosage of this drug is between 15 and 45 milligrams. Plaintiff believes that this combination of medications keeps his depression under control.

In contrast to the testimony of some of Plaintiff's expert witnesses, Dr. Robert Granacher does not believe that Plaintiff has toxic encephalopathy and testified that Dr. Ducatman's examination of Plaintiff did not disclose a person who was poisoned by solvents.

Dr. Barry Gordon, a neurologist and neuro-psychologist who specializes in behavioral neurology, "which is the medical science of problems that are wrong with the brain, attention, memory, thinking, language," founded the Memory Clinic at John Hopkins University, and currently hold what is known as "an endowed chair to study treatment basically of brain problems," also opined that Plaintiff's occupational exposure to C-13 did not injure him.

Dr. Gordon testified that "in the general population most of the times when people complain about their memory, nothing is wrong with their memory. It's because they're depressed or anxious." Dr. Gordon also noted that overwork and fatigue can cause memory problems. Additionally, drugs used to treat depression can cause problems with memory.

Dr. Gordon admitted that there is currently a debate as to whether long-term exposure to solvents can cause brain damage. Dr. Gordon then testified that if this type of exposure does cause brain damage, the scientific literature states that it requires "ten years of a high level of exposure" to be "associated with impairments in neuropsychological test performance."

Dr. Gordon also opined that the scientific literature unanimously provides that if long term exposure to solvents does cause permanent brain damage, that damage does not worsen after the exposures stop. With regard to Plaintiff, Dr. Gordon testified that:

[s]o if we go back to this, okay, this is [Plaintiff]. Remember what he said. Here's the period of exposure, he's fine, and we'll say is fine somewhere up in here for him, during that period of time. It's only here in '95 that he has problems.

So I can already tell you right at the beginning that this is very unlikely to be solvents because – in fact, it's impossible if you accept it to be – if you accept that to be the pattern of what solvents do, this cannot be the pattern.

Dr. Gordon's office performed neuropsychological testing on Plaintiff, and he reviewed the tests performed by Drs. Morrow and Haut. He opined that Plaintiff's neuropsychological testing does not demonstrate any deficits and that Plaintiff's exposure to solvents did not cause permanent brain damage. Specifically, he testified that,

[t]o the extent that [Plaintiff] complains of memory problems in here, they're relatively mild. They're not maybe even outside the range of normal.

If they are outside the range of normal, and I'm not saying that they really are, they're still relatively mild. His testing doesn't show any problems. His everyday life is not showing significant problems except for the areas that you'd anticipate, namely, for example, that you's get from overwork. He's still managing. It's not – not like he's not managing the way people with real memory problems can't do anything really.

And, therefore, he can't be having to a reasonable degree of medical probability a problem from solvent damage to his brain because the time course is wrong and the pattern here is wrong. He hasn't got a pattern, not from so-called solvents.

Now, again, I'm being a little neutral there as to what solvents actually do. There is a big argument, but even if we accept that solvents can damage memory in some groups of individuals, his memory is intact.

Plaintiff has a family history of depression, including his mother. As Dr. Gordon testified, "people have depression for what's now thought be heavily genetic reasons." Dr. Gordon does not opine on the specific cause of Plaintiff's depression but notes that it may be due to a genetic predisposition. Dr. Gordon concluded his direct examination by stating that if he saw Plaintiff as a clinical patient, he would say,

"I've got good news for you. I really do have good news for you. I study the brain. That's all I do and you do not have a brain problem from these solvents.

You do have this depressive illness. You've been on medication for it. You're working pretty hard. I can see lots of reasons why your brain may not seem to be working well right now, but if you can get away from that, there will be periods in your life when your brain will work just the way it did before, apart from, of course, normal aging which none of us can escape or at least I'm not aware of anyone escaping it." So I think – I know I would have fundamental good news for him.

Analysis

I.

We will consider the bifurcation issue at the outset. It is permissible to assume that the trial judge bifurcated the issue of the statute of limitations because the evidence then available to the court indicated that this specially pleaded defense might be well taken, thus obviating a lengthy, expensive trial. The Defendant presented no evidence on the issue which the jury resolved in favor of the Plaintiff who argues that the issue was not separable and distinct from the issues of liability, causation and damages and thus the trial judge abused his discretion in bifurcating the trial.

In *Ennix v. Clay*, 703 S.W.2d 137 (Tenn. 1986) the Supreme Court discussed the applicable standards for bifurcation:

“The decision whether or not to sever the issues for the jury must be left to the sound discretion of the trial judge and the interests of justice will warrant a bifurcation of the issues in only the most exceptional cases and upon a strong showing of necessity In making its decision the trial court should consider the possibility of juror confusion, the risk of prejudice to either party, and the need of judicial efficiency. Above all, the issues at trial must not be bifurcated unless the issue to be tried is so distinct and separable from the others that a trial of it alone maybe had without injustice.”

At this juncture, and parenthetically, we note that the Defendant insists that its special plea of the statute of limitations should have been sustained as a matter of law, because the statute of limitations of three years, 45 U.S.C. Section 56, began to run no later than December 13, 1996 when the Plaintiff saw Dr. Crossland, complaining of memory problems. If this date controls, the action was clearly barred; but the jury found otherwise. We note that the Defendant did not file a motion for a new trial or any motion, see Rule 50.02, Tenn. R. Civ. P.; Rule 3(e) Tenn. R. App. P., and thereby waived the issue. See, *Cortez v. Alutech, Inc.*, 941 S.W.2d 891 (Tenn. Ct. App. 1996).

According to *Ennix* the factors to be considered following a motion to bifurcate an issue are the possibility of jury confusion, risk of prejudice, and need of judicial efficiency. We do not agree with the Plaintiff that the bifurcation confused the jury; to the contrary, it seems to us, sitting in hindsight and in a different forum, that bifurcation of the issue of the statute of limitations likely assisted the jury. It also appears to us that the Plaintiff was not prejudiced by the bifurcation, since

the Plaintiff's experts testified twice. We find no abuse of discretion on the part of the trial judge in the bifurcation of the issue of the statute of limitations.

II.

The Plaintiff insists that the trial judge erred in refusing to charge the jury that his loss of future earning capacity and future wage loss were proper elements of damage to be considered, because the evidence "presented at trial was clearly sufficient to raise an issue for the jury as to loss of future earning capacity and future wage loss."

This is the issue that required a recitation of the relevant proof presented by the parties. We do not again reproduce the testimony of the expert witnesses for the Plaintiff; suffice to state that we have carefully considered this voluminous record and that we agree with the Defendant that the Plaintiff "did not come forward with any proof that he would, in fact, have any future wage loss." Moreover, we agree with the trial judge that the verdict rendered moot the issue of the loss of future earnings. Finally, we note that the Plaintiff presented no proof that the condition would gradually worsen; the only proof touching upon this issue was offered by Dr. Gordon who testified that even if chemical solvents can cause brain damage, the scientific literature states that the condition does not continue to worsen after the exposure stops.

III.

The Plaintiff next argues that because the uncontroverted evidence demonstrated that the Defendant violated OSHA regulations in that the Plaintiff was not fitted with or trained to use a respirator, that he was not warned concerning organic solvents and that the Defendant violated its own rules concerning solvent exposure that required the use of a forced air respirator for spraying, his motion for a directed verdict should have been granted. In Tennessee, when a trial court is confronted with a motion for a directed verdict, the evidence must be viewed in the light most favorable for the party opposing the motion, *Gann v. International Harvester Co.*, 712 S.W.2d 100 (Tenn. 1986), and the motion should not be granted unless a reasonable mind could draw but one conclusion as to the major result. *Holmes v. Wilson*, 551 S.W.2d 682 (Tenn. 1977). The OSHA regulation provides that respirators shall be provided when necessary to protect the health of the employee; an industrial hygienist testified that the railroad did not violate this regulation and that a respirator was unnecessary. We need not dwell on this issue; the evidence was somewhat disjointed and difficult to evaluate as favorable to either party. Suffice to state that it precluded a directed verdict.

IV.

The testimony of a proffered witness for the Plaintiff, Dr. Richard Lipsey, was excluded on a motion in limine. Dr. Lipsey "was to be the Plaintiff's expert witness on toxicology."

According to his brief, Plaintiff intended to call Dr. Lipsey to testify concerning the human health effects and toxicology concerning exposure to the organic solvents in this case, and the scientific literature concerning low dose exposure to these solvents causing brain damage in humans and CSXT's knowledge of the same.

He has a masters in entomology, the study of insects and how to kill them with pesticides, from the University of Arkansas in 1968. He earned his Ph.D. in 1971 from the University of Illinois, in the discipline of toxicology. The discipline of toxicology, includes the adverse effects of the chemicals and solvents used in pesticides on humans and non-target animals, such as birds and fish.

After he obtained his Ph.D., Dr. Lipsey worked in private industry, for the company now known as Bayer Chemical, assessing the benefits and risks of new pesticides, herbicides, insecticides, fungicides and rodenticides. Dr. Lipsey spent four years as a consultant to the EPA, USDA and the US State Department concerning pesticide environmental hazards. He has been involved in consulting since 1986.

Dr. Lipsey is a member of the American College of Toxicology and is a peer reviewer for them. He is a member of the Society of Toxicology. He is affiliated with a number of other professional organizations in toxicology. He taught classes in toxicology for five years at the University of Florida as a professor, and currently teaches an OSHA certification course at the University of Florida as an adjunct professor.

The Defendant argues that the Plaintiff waived his right to challenge the exclusion of the testimony of Dr. Lipsey because he made no offer of proof regarding Dr. Lipsey's testimony as required by Rule 103(a), Tenn. Rules of Evidence. This Rule provides that if evidence is excluded, "the substance of the evidence and specific evidentiary basis supporting admission were made known to the Court by offer or were apparent from the context." To overcome the failure to make an offer of proof, the Plaintiff relies upon a discovery deposition of Dr. Lipsey, taken by the Defendant, to claim that the evidentiary basis supporting admission and the substance of his testimony were apparent from the depositions testimony. The difficulty with this argument lies in the fact that the proposed testimony of Dr. Lipsey is not be found in the discovery deposition. The failure to make an offer of proof as required by Rule 103(a) constituted a waiver of the right to challenge the exclusion of Dr. Lipsey's testimony. His discovery deposition reveals that he has no degree in toxicology, and that he took only one toxicology class in his entire career, and has no specialized knowledge of toxicology. Oddly enough, he admitted that his "expert opinion" really did not require expert testimony, because he proposed to offer opinions that the Plaintiff worked for the Defendant using chlorinated solvents, that the solvents were volatile, that the Plaintiff was exposed to these solvents on a regular basis, and that the symptoms the Plaintiff developed "are consistent with a chronic exposure to the petroleum products,² especially TCA."

² Apparently Dr. Lipsey was not well prepared. TCA [trichloroethane] is not petroleum based.

He would have testified that:

- (1) Plaintiff worked for CSXT using chlorinated solvents;
- (2) the solvents were volatile;
- (3) Plaintiff was exposed to these solvents on a regular basis; and
- (4) the symptoms Plaintiff developed are “consistent with a chronic exposure to the petroleum products,” especially TCA.

Dr. Lipsey readily agrees “that whether or not [Plaintiff] worked for the railroad using chlorinated solvents is a fact.”

Similarly, his second opinion, that the solvents to which Plaintiff was exposed are very volatile is taken from the National Institute of Occupational Safety and Health’s Pocket Guide to Chemical Hazards.

His third opinion, that Plaintiff was exposed to these volatile solvents on a regular basis is based on his reading of Plaintiff’s deposition, a letter he received from Plaintiff’s counsel and the depositions of Plaintiff’s co-workers.

As to his fourth opinion, (that Plaintiff’s symptoms are consistent with the chronic exposure to TCA), he specifically testified that he is not going to form an opinion as to whether or not Plaintiff has toxic encephalopathy.

Tennessee Rule of Evidence 702 allows testimony by experts “[i]f scientific, technical or other specialized knowledge will substantially assist the trier of fact to understand the evidence to determine a fact in issue.” We find no error in the exclusion of Dr. Lipsey’s proposed testimony.

V.

The Plaintiff claims that the trial court erred in allowing Dr. Robert Granacher to testify on behalf of the Defendant, and filed a motion in limine to exclude his testimony. The Plaintiff argues that Dr. Granacher’s experience and expertise did not qualify him to offer the opinions he expressed at trial, that his opinions are almost exclusively based upon a model that is entirely dissimilar to the plaintiff’s case, and that his testimony failed to meet the standards of *McCaniell v. CSX Transportation, Inc.*, 955 S.W.2d 257, 263-264 (Tenn. 1997), and Tennessee Rules of Evidence 702 and 703.

The Plaintiff further argues that Dr. Granacher has never treated anyone who was occupationally exposed to the solvents at issue in this case. He has never published in the area of solvent encephalopathy. His clinical experience in the area of brain damage from solvent exposure

involves only glue sniffers and paint huffers, person who deliberately inhale these substances to the point of intoxication. They purposely and chronically expose themselves to the highest dose that they possibly can, according to the Plaintiff. This is clearly an entirely different situation than the exposures of Plaintiff and the other workers at Cumberland, who would try to leave the work area for fresh air when they became ill or dizzy or suffered other acute effects of exposure. C-13 also has different chemical components than those involved in glue sniffing and paint huffing.

The Defendant argues that the court allowed Dr. Granacher to testify, pointing out that he served a residency and a fellowship in psychopharmacology and neurology at Harvard Medical School, in 1973. Directly relevant to Plaintiff's depression, Dr. Granacher specializes in psychiatric medicine and is "board certified in a number of what are called subspecialties of that discipline."³ In addition to his private practice, Dr. Granacher is a full clinical professor in the department of psychiatry at the University of Kentucky Medical School, where he teaches fourth (4th) year psychiatric residents.

He has written chapters in medical text books which deal with injuries to the brain caused by toxic chemicals, as well as numerous scientific articles on toxicological topics. Additionally, he recently completed a complete textbook on brain injury that will be published in the United States, Australia and Europe.

His clinical experience is directly relevant to the issues at trial. He has treated, tested or evaluated "thousands" of people who have or claim brain damage, including those who have or claim damage due to solvent exposure. He frequently treats patients for a solvent toxic disorder known as "glue sniffer syndrome" or paint huffer syndrome." He has not treated many patients who claim occupational exposure to solvents because those types of situations rarely come to any doctor's attention.

During thirty years in private practice, Dr. Granacher developed a methodology or protocol for evaluating brain damage in human beings. The American Psychiatric Association recognizes this protocol and requests that Dr. Granacher teach it to other doctors throughout the world at its meetings. This methodology is proper for any type of brain injury, including those caused by exposure to toxins.

For his work in the practice of medicine, the American Psychiatric Association awarded Dr. Granacher "distinguished fellow" status. Additionally, the National Association for the Advancement of Mental Illness awarded him a national award known as the "Exemplary Psychiatry Award" in 1996.

³ Dr. Granacher is board certified in general psychiatry, geriatric psychiatry, forensic psychiatry, sleep medicine and clinical pharmacology.

We hold that the trial court did not err in allowing the testimony of Dr. Granacher. The judgment is affirmed at the costs of the Appellant, Deron A. Hatton.

WILLIAM H. INMAN, SENIOR JUDGE