

Vailes v. Desoto Parish Police Commission
11th Judicial District Court, Caddo Parish, Louisiana
Case No. 494,553-B
13 May 07

This is a case synopsis of a pre-trial evidentiary hearing written by Harris Technical Services. This was a civil trial case and not published. When initially filed, Caddo Parish and Desoto Parish were both named as defendants. Caddo Parish settled with the plaintiff before trial began. The jury's verdict was in favor of the plaintiff.

On Feb. 15, 2005, Plaintiff was proceeding to her employment from her residence on White Springs Rd. in Caddo Parish, LA. As the eastbound vehicle proceeded through a moderate right curve it began to slip on loose gravel and the driver was unable to maintain control. The driver steered the vehicle to the right and entered the west end of the Wallace Bayou bridge. After entering the bridge, the vehicle struck the bridge guardrail on the south side. The vehicle followed along this rail for three to four feet where it was re-directed back to the left. The vehicle then crossed the center line of the bridge and impacted the north guardrail. The vehicle penetrated the north guardrail and fell into deep water below. The vehicle and driver were found at the bottom of the bayou, with the vehicle against the bridge pilings, approximately eight hours after the accident.

The driver was familiar with the road on the morning of the accident. This was the route the driver normally used to travel from her residence to her employment at a school for the deaf. The driver was deaf.

The road had an asphalt surface, in poor condition, with numerous potholes and ruts. For several years, heavy trucks have been utilizing this road to support gas drilling operations in the area. The road was not specifically engineered for this level of traffic. The area is primarily rural with widely scattered residences.

The day before the accident occurred, Desoto Parish had placed loosed gravel on the surface in the area west of the Wallace Bayou Bridge in an effort to smooth the surface. The gravel had not been compacted at the time of the accident. The parish line is roughly at the center of the bayou with Caddo Parish to the east and Desoto Parish to the west of the bridge. The bridge itself was built and maintained by Caddo Parish. Two actions were filed in relation to the accident. One was filed against Desoto Parish Police Commission for the placement of the loose gravel and failing to provide warning to approaching drivers of the new hazard. The second action was against Caddo Parish for failing to build and maintain a bridge guardrail that met American Association of State Highway and Transportation Officials (AASHTO) minimum specifications and failed to prevent the vehicle from penetrating the guardrail falling into the bayou.

The vehicle was a 2000 Pontiac Sunfire. This vehicle was equipped with an Event Data Recorder (EDR) installed by the manufacturer. The EDR was recovered from the vehicle and contained a "non-deployment" file that was downloaded by the Louisiana State Police. Inspection of the vehicle found the air bags had not deployed. The EDR is designed to record information about the vehicle in the event of a collision.

A nondeployment file can be recorded when the EDR detects a crash may have begun but does not reach the impact force levels that meet the criteria for an air bag deployment. A deployment file is recorded when crash forces are detected that warrant an air bag deployment.

A deployment file, if recorded, is written to memory and locked to prevent overwriting or erasure of the data file. A non-deployment file may be overwritten or erased following enough ignition cycles or by another event that is greater in magnitude than the existing non-deployment record. An ignition cycle is one engine start of the vehicle. The ignition cycle count begins with the first time the vehicle is started after leaving the production line. After approximately 250 ignition cycles, a non-deployment file can be erased even if there are no other events recorded.

The EDR records a number of data elements. These include vehicle speed, engine RPMs, brake application (on or off), throttle position (percent) and ignition cycle count at the time an event, deployment or non-deployment, is recorded.

The police download of the EDR provided a non-deployment file. This is consistent with the vehicle not having the air bags deployed as a result of this crash. The vehicle speed was reported in one second intervals for five seconds preceding the non-deployment event. The speeds were 46mph at five seconds, 32mph at four seconds, 24mph at 3 seconds, 7mph at two seconds and 8mph at 1 second.

There were two known possible impacts in this crash that could have set the nondeployment file. The first was the vehicle's contact with the south bridge rail. This impact redirected the vehicle away from the south bridge guardrail and across the roadway to the impact with the north bridge guardrail. The police investigation found the vehicle was traveling at approximately 15 degrees relative to the south bridge guardrail on impact.

This is a very slight angle relative impact angle. It is unlikely this impact would set a nondeployment file as the vehicle would not undergo a significant speed loss. The second impact, with the north guardrail, was determined to be approximately 35 degrees by the police. This angle of impact, with a solid barrier, would certainly cause a deployment or non-deployment file to be recorded. As the vehicle was able to penetrate the guardrail, with very little damage to the front of the vehicle, it is possible this impact would have set a non-deployment file.

As stated previously, one issue in this case was the structural integrity of the guardrail with Plaintiff claiming it was deficient. Defendant claimed it was not deficient and held that the non-deployment file speed indication of 46mph at five seconds before this impact was evidence that the driver was exceeding the posted speed limit of 35mph. The defense is based on the speed of the vehicle, in excess of the posted speed limit, precipitating the loss of control and subsequent impacts with the bridge guardrails. Defendant's also claimed the vehicle impacted the guardrail at 60 to 70 degrees as opposed to the 35 degrees (approximately) as determined by the police investigation. With this impact angle and vehicle speed, the guardrail would not, according to the Defendant, been able to prevent the vehicle from penetrating the guardrail even if it did meet all AASHTO specifications.

There was little physical evidence on the road from this accident. Some tire marks, in the loose gravel, were observed by witnesses that they believed came from the accident vehicle and indicated it was "fishtailing" as it came through the curve. These marks were also observed by the police and traced to the first impact with south guardrail which had evidence of an impact. Beyond this point, a short, four foot long, yaw mark, indicating the car is rotating and being steered left, was observed by the police. Specific information on this yaw mark, locations of end points, radius, etc., were not recorded and could not be clearly identified in the crash scene photos. Since the accident occurred, the road has been resurfaced and the bridge guardrail repaired.

Due to the lack of tire marks, that could be positively linked to the accident vehicle, and a lack of specific information of the locations and lengths of the tire marks, this evidence could not be used to determine a speed for the vehicle as it approached the bridge. Due to the non-standard construction of the bridge guardrail, essentially a wooden structure, load bearing factors could not be determined. The distance the vehicle traveled from the bridge to impact with the water could not be determined. The police reported the water flowing swiftly and the water depth was approximately 12 feet. The fall distance from the edge of the bridge to the water surface was approximately 15 feet. Once the vehicle fell into the water, it was pushed south into the bridge pilings where it was found several hours later.

Defendant produced an expert in traffic accident reconstruction that opined the vehicle speeds from the EDR were consistent with his analysis of the speed of the vehicle based upon the physical evidence. Plaintiff countered that the EDR non-deployment record, the only record in the EDR, may not be related to this accident but may be a result of another impact, possibly with a pothole on the road, at some time preceding this accident.

To determine if the EDR non-deployment record was, in fact, related to this accident required testing of the EDR module. This was accomplished by setting a new nondeployment record that would overwrite the existing record and provide the ignition cycle count at the time of the test. This new ignition cycle count value is compared to the ignition cycle count reported for the existing non-deployment record obtained by the police. As the vehicle was not started between the time of the accident and the time of the first data recovery of the EDR by the police and testing, the ignition cycle count at the test should be a known value of the existing non-deployment ignition cycle count.

Each time the EDR module is energized, it counts that as one ignition cycle. The ignition cycle count at the police download, indicating the cycle count at the time of the event record, was 7883. This same value was reported at the download immediately before testing the module to overwrite the non-deployment file. With the police conducting two downloads, one download by the Defense expert, and one more download being conducted immediately before the test, the cycle count, if the existing non-deployment file was a result of this accident, would be 7888, a total of five.

During the test, the EDR module was energized, that is power was supplied to activate the sensing and diagnostic module programming. The module was slammed against table top, while energized, and in the forward direction indicated on the module, to set a new non-deployment file. The test was successful and a new non-deployment file overwrote the existing non-deployment file.

The ignition cycle count at the test was 7907. A total of 24 ignition cycles occurred between the time the original non-deployment file was written and the test file was written. Of these, five could be accounted for and 19 could not. The five accountable ignition cycles were post-accident cycles; two by the police during the initial investigation, one by the defense expert, one by plaintiff's expert and one during the testing.

With 19 excessive ignition cycles, an investigation was made to determine if someone had attempted to start the vehicle after it was recovered from the bayou. The vehicle had been submerged for several hours, rendering the electrical system inoperable. The salvage yard operator that recovered and stored the vehicle through the time the police removed the EDR module stated there were no attempts to start the vehicle while it was in his possession.

Due to the large difference in the ignition cycle counts (19), the original EDR nondeployment file was written some time prior to the accident and could not be related to this accident.

Based upon the above, the court ruled, in a pre-trial hearing, the EDR evidence was not admissible and no reference to the EDR could be presented to the jury.