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# THE SAFETY RECORD

INSIDE THIS ISSUE



## Toyota's Mounting Troubles

TORRANCE, CA— The world's largest automaker Toyota, known for its rock-solid reputation for quality among consumers, is finding the pedestal a bit shaky these days. Last month, Toyota launched its largest recall in the company's history for all-weather floor mats that may entrap the accelerator pedals after four died in an Sudden Unintended Acceleration (SUA) crash in California; the company is currently under investigation for a severe rust problem with Tundras; and litigants are clamoring for what's in those four boxes of documents that former corporate attorney Dimitrios P. Biller – who has accused Toyota of destroying and concealing evidence in rollover cases – dropped off at a federal courthouse in Texas.

Toyota recalled the floor mats in 3.8 million Camry, Lexus, Avalon, Prius, Tacoma, and Tundra vehicles in an apparent response to the horrific August crash in Santee, California, that resulted in the deaths of a California Highway Patrolman Mark Saylor, his wife, daughter and brother-in-law. Toyota did not directly tie the recall to the crash, saying only: "recent events have prompted Toyota to take a closer look at the potential for an accelerator pedal to get stuck in the full open position due to an unsecured or incompatible driver's floor mat," in its recall announcement.

But the National Highway Traffic Safety Administration has tied the fatal crash to the one outstanding Toyota SUA investigation still open at the Office of Defects Investigation. NHTSA has been investigating SUA complaints in Camry, Tacoma, Sienna and Lexus vehicles since 2003. Ten of those investigations were closed after a finding of accelerator pedal interference – from an unsecured accessory floor mat or an interior trim panel – or closed with no conclusion. In April, Jeffrey Pepski, a Lexus owner from Plymouth, MN asked the agency to re-open its investigation into SUA in Lexus ES350s. Earlier this month, the agency filed its report of the incident in Pepski's petition file.

Pepski experienced an SUA event while driving at high speed, in which the vehicle accelerated to 80 mph. Pepski tried pumping and pulling up the accelerator with his foot – to no avail. He slowed the vehicle to about 25 mph, to the smoke and smell of overheated brakes, shifted into neutral, and depressed the start/stop button, but the rpms began to increase on the tachometer. Pepski shifted back into drive and his Lexus vaulted to 60 mph. Suddenly, the acceleration stopped. He stopped the vehicle, shifted it into park and depressed the start-stop button to turn off the engine. The vehicle shuddered to a halt.

He immediately returned the Lexus to the dealership, where it remains. Pepski refused to drive it. In May, two NHTSA investigators and one Toyota representative visited Pepski to examine the vehicle. They took it for a test drive, but were unable to duplicate Pepski's out-of-control ride. Then, Pepski said, they tried to persuade him that the floor mat was to blame. (Pepski's vehicle did not have the all-weather floor mats subject to the current recall. His vehicle was only equipped with the original equipment carpet mats.) Pepski remained convinced that the root of his vehicle's problems are in the electronics.

"I was trapped in a runaway vehicle," Pepski recalled. "I was able to push down on the accelerator as well as push up the accelerator with my foot. If the floor mat had been the cause, I would have dislodged it and the acceleration I was experiencing would have gone away and that didn't happen." He asked the Toyota representative to demonstrate how the floor mat could

(*Cont. on p. 5*)

## CPSC Staff Votes to Write Mandatory ROV Standards

WASHINGTON D.C. – They're faster than a golf cart, more powerful than an All-Terrain Vehicle, and able to climb rough terrain. The U.S. Consumer Product Safety Commission has also concluded that Recreational Off-Road Vehicles (ROV) are potentially deadly, and prime candidates for regulation. Last week, the commission voted to accept an agency staff recommendation that the agency publish an Advance Notice of Rulemaking to begin the process of setting standards.

ROVs were introduced into the market in 2003. A cousin to the ATV, Recreational Off-Road Vehicles resemble souped-up mini-jeeps, with four low-pressure tires, a steering wheel, seating for a driver and one or more passengers, roll bars, seat belts and speeds greater than 30 mph. Like ATVs, they are designed for off-road use on rugged terrain. And like ATVs, their safety record is spotty. In the last six years, the CPSC has been able to document 181 reports of ROV-related injuries and deaths. From January 2003 to August 2009, the CPSC found 116 deaths and 152 injuries in ROV crashes. Of those incidents, a whopping 125 – 69 percent – involved overturning, without a triggering collision. The remaining incidents involved a collision with an object or another vehicle. The staff further discovered that in every rollover in which ejection could be determined, nearly all resulted in a full or partial ejection from the vehicle by falling out or somehow climbing or jumping out.

(*Cont. on p. 3*)

## Ford Recalls Windstar for CCDS Failures; Largest "Rolling Recall" in Ford History

WASHINGTON, D.C. – Sixteen months after the National Highway Traffic Safety Administration opened an investigation into fire-prone cruise control deactivation switches, Ford Motor Company announced a recall (09V399) of 4.5 million Windstars and seven other models to inspect and repair the leaking components.

The latest wave of vehicles to be plagued by cruise control deactivation switch fires and included in a recall brings the total to 14.1 million Ford vehicles the largest rolling recall to date.

Since 1998, Ford and NHTSA have known that the cruise control deactivation switches in some Ford vehicles fail, igniting fires that have destroyed hundreds of trucks, SUVs and luxury vehicles while parked with the engine off. In the last 11 years, this defect has been blamed for about 1,500 fires and at least two deaths, and sparked five separate NHTSA investigations, one consumer advisory and seven recalls.

Ford first began recalling vehicles in May 1999, with a small campaign to replace the switches in 279,000 1992-93 Lincoln Town Car, Crown Victoria and Grand Marquis vehicles. By the sixth recall, in August 2007, the automakers campaigns had grown – 3.67 million Ford and Mazda trucks going back as far as the 1992 model year. These vehicles were built with a powered-all-the-time electrical architecture that resulted in the switch igniting when the engine was turned off. That recall addressed the last of the 9.6 million vehicles equipped with Texas Instrument switches, wired to be "hot" at all times.

The vehicles covered under this October recall differ in that they don't use a powered-all-the-time system. Instead, the problem has been identified as brake fluid migrating from the leaking CCDS switch to the anti-lock brake system module connector, where it can ignite, smoke, or burn.

This latest recall affects: MY 1995-2003 Windstar, 2000-2003 Ford Excursion diesel, 1993-1997 and 1999 2003 Ford F-Super Duty diesel, 1992-2003 Ford Econoline, 1995-2002 Ford Explorer and Mercury Mountaineer, 1995-1997 and 2001-2003 Ford Ranger, and 1994 Ford F53 Motorhome vehicles.

In May 2008, the Office of Defects Investigation opened a Preliminary Evaluation into Windstar engine fires after receiving 130 complaints – 36 in one 12-month period alone. Two alleged that the fires spread from the minivan to their home, causing structural damage. About half complained that the fire occurred while the vehicle was parked and roughly a quarter said that the fire ignited while the vehicle was running. The investigation covered 1.6 million 1995-2003 Windstars.

In its response, Ford said that it shared "the concerns of the agency and our customers regarding the potential risk for Speed Control Deactivation Switch (SCDS) fires." And yet, in its internal review of the reports and test data, the automaker could find "no evidence to support a conclusion that a leaking SCDS presents any unreasonable risk to motor vehicle safety in these vehicles." Ford assured the agency it would be continuing its analysis.

In September 2008, the agency bumped the investigation up to an Engineering Analysis. By that time, the tally had risen to 134 consumer complaints, 285 manufacturer complaints, and 137 manufacturer warranty claims alleging incidents of engine compartment fire. The agency issued no information request to Ford over a 12-month period and the agency posted no other information about its investigation before Ford announced

(*Cont. on p. 5*)

## Third Party Certification Questioned in Mr. Heater Burn Case

HOLLY SPRINGS, MISSISSIPPI – Is third-party certification worth the paper it's printed on? Consider the case of Frederick Hampton, who is still recovering from third-degree burns over much of his body after a close encounter with a defectively designed product that bore the Canadian Standards Association seal of approval.

On Oct. 27, 2007, Hampton was walking down the hall of his Holly Springs, Mississippi home, past his wall-mounted Mr. Heater, fueled by propane. Manufactured by Enerco, Inc., the unvented gas heater had been installed by the local gas company to replace one that had been damaged in a house fire. As he passed the unit, a flame shot out beyond the safety grill, igniting Hampton's dress shirt. Hampton suffered third degree burns on his arms, legs, torso, buttock area, neck and hands, before the shirt was torn from his back and the fire extinguished.

This Enerco Mr. Heater model MHIRLPT30 had been certified as an Unvented Gas Room Heater by the large and well-recognized third-party lab, Canadian Standards Association. The CSA offers manufacturers six options for certification ranging from controlling everything (from testing to documentation), to the CSA controlling the process. All options to certify a product lead to full CSA certification and entitlement of use of the CSA mark. In a departure from industry standards, CSA only requires two tests per year versus a norm of four annually. The heater was allegedly certified to US standards – most likely ANSI Z21.11.2, which covers unvented gas heaters.

Third-party certification organziations providing design certifications generally require manufacturers to re-certify if changes are made to the product in order to continue to use the mark. Certifying organizations are also quick to note that they are not a substitute for quality control and manufacturing-related defects that may find their way into products.

Don Mays, Senior Director of Product Safety Planning and Technical Administration at Consumers Union, says that the certification system has been pretty robust. There are 17 companies conducting third-party testing under the Occupational Safety and Health Administration's *N*ationally Recognized Laboratory Testing Program – with CSA and Underwriters Laboratory among the largest. CSA became the main certifying lab for gas products after buying the American Gas Association's certification business. While CU has seen problems with CSA-certified gas grills and melting fireboxes, that has been an issue of weak standards, not bogus certification procedures, Mays said.

Problems can crop up when certifying marks are counterfeited or when labs don't do enough follow up inspections to ensure that the product has not undergone a design change that can potentially threaten product safety. The system could also breakdown under so-called applicant training programs. In an effort to clear a backlog, certifying labs have launched programs to train factory employees to do self-certification.

"As far as bad designs getting through," Mays added. "They've relaxed the system. I don't know how much cheating is going on, but there is that opportunity."

Memphis attorney Pat Ardis, who represents the Hamptons in a lawsuit against Enerco and other parties, questions the validity of the Mr. Heater certification. Ardis says that the heater suffers from an inherent design flaw that causes too much propane to be released upon ignition, forcing the flame up and out of the combustion chamber and creating a burn hazard. Ardis, working with Safety Research & Strategies, has provided the information to the U.S. Product Safety Commission to investigate.

"These heaters have a single-stage propane dump and it only operates on one speed – high speed. Whenever its running, it's running full blast and it starts up with the same intensity," Ardis says.

***See video and photos of Mr. Heater Flame rollout:***
video 1, video 2, Photos

## CPSC Staff Votes to Write Mandatory ROV Standards

(*Cont. from p. 1*)

The agency said that those figures were most likely undercounts, because, it suspected, not all incidents had been reported to the CPSC or because incidents involving ROVs might be mischaracterized in reports as ATVs or light utility vehicles.

The Recreational Off-Highway Vehicle Association (ROHVA) expressed "disappointment" in the vote and said that appropriate standards could have been reached through industry consensus.

Last week, the CPSC announced that Bad Boy Enterprises of Natchez, Mississippi would recall 3,900 Classic Buggies, because they could "accelerate without warning." In its announcement, the CPSC said that the company had received 32 reports of unexpected acceleration, with some resulting in injuries "such as a fractured toe, rotator cuff injury and sore muscles." The Bad Boy Buggy Standard model, which sells for about $10,000, features side-by-side seating for two occupants, a roof, but no doors or windows. Bad Boy is offering consumers free repairs.

In late March, Yamaha Motor Corp. U.S.A., manufacturer of the popular Rhino ROV was forced to suspend sales of some models and recall 120,000 Rhino 450, 660, and 700 model off-highway recreational vehicles. The recall was prompted by a commission investigation of more than 50 incidents involving those models, resulting in 46 occupant deaths. More than two-thirds of the crashes were rollovers. Yamaha offered to install a spacer on the rear wheels and remove the rear anti-sway bar to improve vehicle stability and handling, and to add half doors and more passenger handholds to keep occupants' arms and legs inside the vehicle during a rollover. Yamaha also offered the same repair program for 25,000 Rhino 700 models, "in order to ensure customer satisfaction," a CPSC recall announcement said. This high-profile recall followed two other less publicized actions by Yamaha. In 2006, it distributed stickers warning riders to keep their limbs in the vehicle; in 2007, without characterizing the campaign as a recall or involving the CPSC, Yamaha offered customers free doors to contain them.

Despite the trail of mayhem, the vehicles have gained popularity, with a dozen purveyors – including major motor vehicle manufacturers and Chinese firms – accounting for sales that have risen from fewer than 45,000 units in 2003 to more than 416,000 units by 2008, the CPSC briefing package noted.

According to the ATV playbook, industry neutralizes the CPSC's regulatory impulse by offering its own voluntary set of standards and proceeds to fight tooth and nail until a worn-down commission gives in. In the late 1980s and 1990s, the ATV industry was successful in staving off any mandatory standards for the dangerous vehicles until recently. But, what worked 20 years ago may not have the same traction under a new, strengthened commission as constituted by the Consumer Product Safety Improvement Act.

Round one has gone to the CPSC staff, who met with ROV industry representatives in December 2008 to hear their plans for voluntary standards and to present the findings of the commission's independent research into ROV defects. CPSC staff had identified the three design factors that have the greatest impact on occupant safety as the static stability factor (SSF); vehicle handling and occupant retention and protection. The CPSC found that the SSF values for the ROV models it tested ranged from 0.84 to 0.92 – much lower than that of the tippiest SUVs, which traverse paved surfaces and have many more occupant protections – roofs, windows, three-point belts and airbags.

"CPSC staff believes that a SSF range of 0.84 to 0.92 is inadequate (too low) for a vehicle that is specifically designed to traverse conditions, such as uneven terrain and slopes, that present an even greater rollover hazard to vehicles than level on-road conditions," the briefing package noted.

The CPSC subjected the ROVs to the Society of Automotive Engineers' handling test, SAE 1266 Steady-State Directional Control Test Procedures for Passenger Cars and Light Trucks, and found that too many models "exhibited severe oversteer." This is in contrast to most passenger vehicles, which tend toward understeering to make them more directionally stable and predictable. Oversteering makes a vehicle less directionally stable, resulting in spin-out and rollover conditions. CPSC also subjected the ROVs to static and dynamic rollover simulations and found that occupants were better restrained when the seats were positioned lower in the vehicle and a shoulder guard is installed on both sides of the vehicle.

But, when CPSC staff met with representatives of the ROHVA, the two disagreed on how best to characterize lateral stability. The ROHVA outlined a voluntary standard that included a proposed minimum lateral stability requirement of a 20-degree tilt angle for a fully loaded vehicle. CPSC staff countered that using the SSF factor would be a more meaningful measure and suggested a minimum of 1.0. The ROHVA rejected that and said that it would develop an ANSI standard using a canvas method in which the standards are reached by consensus among those who produce and use the vehicles, instead of against an objective measure.

When the ROHVA submitted its proposed standard to the CPSC in June, the staff noted that the association had ignored the commission's research regarding lateral stability and occupant protection.

"CPSC staff reviewed the draft standard and found no improvements to the proposals made by ROHVA at the December 2008 meeting in the areas of lateral stability and occupant protection. ROHVA still proposed a low tilt angle requirement to address lateral stability, defined stability coefficients for an unoccupied vehicle (an unrealistic use configuration), failed to address vehicle handling, and failed to address occupants coming out of a vehicle during a rollover event."

The CPSC staff found that the seat belt provision is inadequate to address occupant retention, especially in a rollover scenario, because even with three-point belts the designs cannot keep occupants' limbs, torso and head from coming out of the vehicle. The CPSC wanted to see a standard that addressed "the occupant seating location within the vehicle, physical side guards such as doors and shoulder guards, four-point seat belts, and technologies for increasing seat belt use, can improve occupant retention. CPSC staff believes performance requirements for occupant retention and protection should be developed to increase occupant restraint use and to ensure occupant protection within a vehicle in the event of a rollover or collision."

The staff concluded that the ROHVA's standards were too weak and recommended that the staff begin a rulemaking. In response to the vote, ROHVA complained that that CPSC ignored its request to provide any data, research or analysis to support its contention that stricter controls on static stability and occupant retention were needed.

"While awaiting a response from the CPSC to our request, ROHVA retained a nationally known independent expert on vehicle dynamics to evaluate the comments from CPSC staff in order to continue the ANSI process with the benefit of additional expertise. ROHVA expects to issue a revised draft standard, incorporating many participant suggestions, in the coming days," the ROHVA said in a prepared statement. "We are confident that through continued discussion and information sharing, an appropriate standard that reflects the input from all parties can be developed through the ANSI process. We look forwarding to continuing to work with CPSC and other parties in these efforts."

CPSC Briefing Package on ROVs

## Advocates Petition for Anti-Texting Rule

WASHINGTON, D.C. – R U txtN? If you are driving an 18-wheeler, the Advocates for Highway Safety wants you to stop. Late last month, the consumer safety group raised the ante on distracted drivers by asking the Federal Motor Carrier Safety Administration to prohibit or restrict electronic devices that divert commercial drivers' attention.

Advocates petitioned the FMCSA to immediately open a rulemaking to review the most current research on distracted driving, determine which electronic devices and technologies distract commercial drivers and then consider prohibiting them. The Advocates petition says anything that takes drivers off their primary task must be considered – cell phones and hands-free remotes, global positioning systems, texting and entertainment devices – for a ban or a severe restriction. The group asked that first responders, such as police and emergency medical technicians be exempted and that exceptions be made for operators using electronic devices to summon help during an emergency. Finally, the petition requested that any rule apply to all commercial motor vehicle drivers – including bus drivers covered by the FMCSA – and that violations automatically result in an Out of Service order – meaning the driver is prohibited from operating a commercial truck for a specified period of time.

The petition comes on the heels of a number of initiatives to halt the growing use of on-board electronic devices that threaten highway safety. Last month, the National Highway Traffic Safety Administration issued a report on fatalities and injuries in distracted driving-involved crashes. Using the Fatality Analysis Reporting System, the General Estimates System and other data sources, NHTSA found that 5,870 individuals died and about 515,000 occupants in 2008 were injured in police-reported crashes in which at least one form of driver distraction was reported. According to An Examination of Driver Distraction as Recorded in NHTSA Databases, that accounted for 16 percent of all fatal crashes and an estimated 22 percent of injury crashes. Not surprisingly the largest percent of distracted drivers were the under-20 age group – comprising 16 percent of all drivers in fatal crashes in which distraction was reported. (The next largest group was 20-29-year-olds, with 12 percent.) NHTSA researchers believe those figures to be undercounts:

"While these numbers are significant, they may not state the true size of the problem, since the identification of distraction and its role in the crash by law enforcement can be very difficult," the researchers wrote in the report.

The agency presented this research at NHTSA's two-day distracted driver summit earlier this month. Secretary of Transportation Ray LaHood has been an outspoken critic of distracted driving, but NHTSA can not regulate driver behavior, only on-board devices that are part of a vehicle's OE electronics. So far it has declined to do so.

NHTSA spokesman Rae Tyson says that the agency has looked at the issue in the past – specifically original equipment navigation systems that were proliferating in new vehicles – to understand what impact they were having on safety, but came to no conclusions on regulating them.

"We're continuing to monitor the original equipment devices being installed, but we haven't had any serious discussions about any type of regulation," he says. For now, the agency is taking a role it's played in the past on other issues, such as seat belt use, drunk driving, and inexperienced drivers. "We can help the states by doing research and providing guidance to make good decisions on their own."

The gathering included presentations on distracted driver research and legislative efforts to eliminate some forms of driver distractions – most frequently texting. According to a presentation by Vernon Betkey of the Governors Highway Safety Association, more than 200 distracted driving bills have been weighed in 43 states; 18 and the District of Columbia have enacted texting bans. On the federal level, the Avoiding Life-Endangering and Reckless Texting by Drivers (ALERT Drivers) Act of 2009, S. 1536 and H.R. 3535 has been introduced by New York U.S. Rep. Carolyn McCarthy and U.S. Senator Charles Schumer. The measure has been referred to committee in both chambers.

Distracted driving among truckers also made the National Transportation Safety Board 's 2009 Most Wanted List of Transportation Safety Improvements. The NTSB was prompted by investigations into six fatal crashes involving bus drivers or young, inexperienced drivers, in which distraction caused the crash. It specifically wants the FMSCA to "prohibit cellular telephone use by commercial drivers of school buses and motorcoaches, except in emergencies."

Advocates' petition points out that large commercial trucks are represented disproportionately in fatal crashes – representing about three percent of all motor vehicle registrations, but eight percent of all fatal motor vehicle crashes and 12 percent of all traffic fatalities each year.

"One of every nine (9) motor vehicle fatalities in the U.S. each year is the result of a large truck crash," the petition argued.

Advocates also pointed out that research conducted by the Virginia Tech University Transportation Research Institute at the FMCSA's behest found, that driver distraction was involved in 81 percent of "safety-critical events." The Virginia Tech study used naturalistic data collection in which 100 commercial drivers served as subjects over 18 months and 735,000 miles of driving. Using in-vehicle cameras and instruments, the researchers studied professional drivers behavior while using dispatching devices, laptop computers, calculators; maps, cell phones; eating and drinking, and adjusting equipment. In regards to cell phone use, the researchers paid particular attention to how much time a task – dialing, talking, listening texting and reaching for a cell phone –distracted the driver from watching the road. The findings, released in July, showed that drivers dialing a cell phone had a 5.9 times greater risk of crashing and those reaching for any electronic device were 6.7 times more likely to have a crash. Text messaging while driving a truck was the most hazardous activity, increasing the crash risk by nearly 24 times non-distracted driving. This activity also took drivers' eyes from the road the longest – 4.6 seconds over a 6-second interval.

"This equates to a driver traveling the length of a football field at 55 mph without looking at the roadway," the researchers said in a news release.

VA Tech researchers concluded: "Texting should be banned in moving vehicles for all drivers…This cell phone task has the potential to create a true crash epidemic if texting□type tasks continue to grow in popularity and the generation of frequent text message senders reach driving age in large numbers."

### Take VSIRC for a Test Drive

VSIRC research tools allow quick and easy retrieval of government data and documents that until now have been difficult to access and search, inaccessible through the government web portals, or no longer available from the National Highway Traffic Safety Administration.

Version 1.2 includes four datasets based on records and documents from the National Highway Traffic Safety Administration: Recalls / Foreign Recalls, Defect Investigations, Complaints, and Crash / Compliance Tests.

Users can now research issues in seconds that that once took days or even weeks, if it could be done at all.

**www.vsirc.com**

## Toyota's Mounting Troubles

(*Cont. from p. 1*)

encroach upon the gas pedal – and remain there while a driver pushed and pulled the pedal.

"They couldn't demonstrate that," Pepski says. "If they can't duplicate it, they say it didn't happen, but computer glitches in cars can happen, just like they happen on your home computer. Glitches happen all of the time. Most have no serious consequences, but some do."

Pepski's petition was very unusual in its sophistication and detail. He raised seven issues with the agency related to wording in previous investigations that may have unnecessarily narrowed their scope. He asserted that ODI closed the last Lexus investigation too swiftly, concluding that the all weather floor mats were to blame, without investigating other causes. He argued that, based on his own difficulty in bringing his Lexus to a stop, the vehicle did not adhere to the FMVSSs governing accelerator control and service brake systems. He also criticized NHTSA for stating in a previous investigation that drivers could bring runaway vehicles to a halt by depressing the start-stop button for three seconds, when the Lexus owner's manual specifically informs drivers that the engine can not be turned off unless the vehicle shift is in the park position.

Toyota did not wait for the agency to send an information request. Instead, it took the aggressive step of responding directly to the petition. It described Pepski as a disgruntled customer who would not accept Toyota's conclusion that it was the result of floor mat interference and attempted to refute each point. It grudgingly allowed that perhaps the wording in its owner's manual regarding turning the engine off might be misleading and would be corrected in future editions.

NHTSA has not yet ruled on the petition. But its inclusion of the Santee crash report, in which the agency made much of the evidence of an unsecured all-weather floor mat and taxed-to-limit brakes, leads some observers to speculate that this investigation is going the way of other Lexus SUA probes – even though Pepski did not have an all-weather floor mat.

Regardless of the causes, the frantic efforts of drivers to bring runaway vehicles to a halt also underscore the need to closely examine Toyota vehicles' control issues. In order to turn off the push-button ignition system when the vehicle is in operation, drivers must depress the button for three seconds. Many Toyota and Lexus owners are unaware of the added time needed to hold the button in order to stop the car. The gated shifter, which has a series of detents defining the separate gears, can make finding "Neutral" challenging under emergency situations. And Toyota and Lexus models lack an algorithm used by a number of other automakers, including BMW and Audi, which automatically return the engine to idle when the engine controls detect brake and throttle input together. Lacking the return-to-idle feature, braking a Toyota or Lexus requires much more force and can result in significant brake fade or loss, particularly during long duration SUA events. In April 2008, a report by the Vehicle Research and Test Center on a Lexus ES350 as part of a 2007 Lexus SUA Engineering Analysis found: "with the engine throttle plate open, the vacuum power assist of the braking system cannot be replenished and the effectiveness of the brakes is reduced significantly." It also noted that "brake pedal force in excess of 150 pounds was required to stop the vehicle, compared to 30 pounds required when the vehicle is operating normally."

"Toyota has already hinted that it is looking into more substantive fixes beyond the floor mats," says Safety Research & Strategies President Sean E. Kane. "I suspect that when Toyota does implement a fix it will likely include software updates to address the on/off ignition delay and the brake-to-idle issue."

On October 6, NHTSA also opened a Preliminary Evaluation into a severe corrosion problem plaguing the frame rails and rear cross-members of 2000 and 2001 Tundras. The agency has received a total of 20 complaints from owners alleging brake failures, or falling spare tires. Three quarters of the complaints allege that part of the vehicle's undercarriage were so corroded that the spare tire mounted underneath separated from the rear cross member, sending the spare bouncing into the roadway. Five reports alleged broken brake lines at the proportioning valve located on the driver's side of the rear cross-member at the upper shock mount. The probe covers 218,000 Tundras. In 2008, Toyota announced that it would buy back more than 800,000 MY 1995-2000 Tacomas that had rusted beyond repair for 150 percent of the highest Kelley Blue Book value. It also extended the rust warranty for the older trucks to 15 years.

Meanwhile, down in Dallas, attorney Todd Tracy will be the first to gain insight into the inner workings of Toyota's legal department. On October 1, Biller hand-delivered four boxes of documents to the clerk of the U.S. District Court for the Eastern District of Texas, along with a letter describing its contents. The letter was sealed, but provided to Tracy and Toyota attorneys. A week later, the judge held a telephone hearing to decide how the documents would be handled. Tracy and Toyota had already reached an agreement, subject to the court's approval, to create a privilege log and to have the court handle any production objections.

Under a strict protocol managed by a third party, IKON Document Solutions, only Toyota's in-house counsel and counsel of record can review the documents, which will reside in a secure database. IKON must keep a log of the individuals, with unique log-ins

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## Ford Recalls Windstar for CCDS Failures; Largest "Rolling Recall" in Ford History

(*Cont. from p. 2*)

the recall.

In its defect notice, Ford said that it had changed its mind about whether the leaking switch constituted a threat to safety:

"Ford is making a safety-related defect determination for the Windstar vehicles. We have not made a safety-related defect determination for the other vehicles included in this recall, but are including them to avoid any future concerns related to a potential fire risk resulting from the Texas Instruments SCDS either from the agency or from our customers."

The Closing Resume, posted after the recall was announced, indicates that the agency tackled the problem by comparing fire rates in Ford Windstars to peer vehicles – the Honda Odyssey and the Toyota Sienna – and by live fire testing the failed CCDS switches. For the latter, the agency already had a well-travelled route, developed during the numerous investigations into the failed switches in vehicles that used a powered-all-the-time electrical system.

Like those in previously recalled Fords, the deactivation switch is mounted on the brake master cylinder, but is oriented in a vertically down – rather than vertically up – position. Originally, investigators believed that the leak path of brake fluid would flow from the hydraulic side of the switch to the electrical side of the switch, corroding the contacts, and eventually developing a short. The heat build-up in the switch cavity would melt the plastic housing and, in some cases, ignite. The agency had theorized that the vertically down orientation would inhibit ignition, because the metallic corrosion debris would settle in the plastic base of the

(*Cont. on p. 8*)

## Center for Auto Safety Calls for Jeep Recall

WASHINGTON, D.C – The Center for Auto Safety has called for the National Highway Traffic Safety Administration to investigate defective fuel tank design in 1993-2004 Jeep Grand Cherokees, and to recall any of the popular SUVs with a fuel tank located behind the rear axle.

CAS based its October 2 petition on FARS data showing that Grand Cherokees built prior to 2005, (when DaimlerChrysler redesigned the SUV to move the fuel tank to a more protected location) were involved in 172 fatal fire crashes resulting in 254 fatalities over a 16-year period. CAS Executive Director Clarence Ditlow says that the petition has been in the works since the spring, when the organization decided to highlight the problem against the backdrop of the Chrysler bankruptcy. At the time, the failed automaker had successfully slipped the bounds of successor liability as it was sold to Fiat. (Chrysler has since followed General Motors example and agreed to assume liability for future crashes involving products built by the old company. Crashes that occurred before the bankruptcy are only liable to the old company.)

Ditlow compared this petition to the organization's 1992 defect and recall petition over fuel tank fires in the General Motors CK pickup trucks with the side-saddle tanks mounted outside the frame rails. An agency investigation showed that the CK was over-involved in side-impact fuel tank fires and that the design of the system was to blame. (Despite this finding, under an intense political campaign by the GM, Ford and Chrysler, the agency closed its investigation, and allowed GM to skip the recall in exchange for a vague $51 million commitment to safety programs.)

"You know there are fires and you know there are lawsuits, but no one has ever connected the dots. We just decided to look into it and see how bad it was and it came up vey bad," Ditlow said. "In the context of the bankruptcy, we wanted to show what might happen with a common defect and this was one everybody could understand."

Jeeps and fire hazards are nothing new. In August, NHTSA launched an investigation into the possibility that 2007 and 2008 Jeep Wranglers with automatic transmissions may burst into flames –apparently due to the transmission overheating and leaking transmission fluid. After the Office of Defect investigations opened a probe into dashboard fires, Chrysler recalled about 150,000 2006 Jeep Liberty vehicles in March 2007. The automaker said that 12 reports of interior fires that might have been related to a malfunction of the HVAC blower. In 2002, Daimler Chrysler recalled nearly 72,000 2001 Jeep Grand Cherokees because the design of the intake and exhaust manifolds could allow debris to accumulate near the number 3 cylinder, and ignite in a vehicle fire. In 2000, Chrysler recalled 1500 Grand Cherokees with suspect vent tube welds, which could lead to a fuel leak and fire.

But the Jeep has been a standout for its antediluvian design, in which the fuel tank is located behind the rear axle – right in the crush zone of a rear-impact collision. The Center also notes that the plastic fuel tank can rupture and degrade over time, that the fuel filler neck tears off in a range of crashes and that the tank is surrounded by "sharp objects such as suspension bolts that can puncture the tank." Chrysler does give consumers the option of thwarting its poor design by selling a steel shield called a "skid plate," ostensibly for off road use.

The apex of bad fuel tank design that still lingers in the public consciousness is the Ford Pinto, which became notorious in the 1970s for fuel tank explosions, inspiring nicknames like, "The Barbeque That Seats Four." Long after many automakers scrapped that location to better protect the tank in a crash, Chrysler's Grand Cherokee and Liberty models sported the fiery crash-prone design, with a plastic fuel tank that extends below the rear bumper, leaving it vulnerable to a rollover or a rear collision with a vehicle with a lower front profile. And the data shows that fuel tank fires have been a problem for more than a decade.

In late September, Quality Control Systems Corp. released Model Year 1993-2004 Jeep Grand Cherokees in Fatal, Rear Impact Crashes Involving Fire, an analysis of rear-impact fatal crashes involving 1993-2004 small and mid-sized SUVs. Researchers Randy and Alice Whitfield studied a total of 480 MY 1993-1998 small utility vehicles and 1999-2004 midsize utility vehicles, where the principal impact was at 5, 6, or 7 o'clock on the rear of the vehicle. The data showed that the Jeep Grand Cherokee was a standout compared to its peers in fatal rear impact crashes in which a fire occurred.

In crashes where the principal impact was at the rear of the vehicle, the Jeep Grand Cherokees has a much higher rate of fire occurrence, at 16 percent (17 fires in 106 rear impacts) compared to all other 4.8 percent of all utility vehicles studied (18 fires in 374 rear impacts). When all of the other Jeep vehicles are excluded from the analysis, the difference grew, with a 16 percent rate compared to 3.7 percent for other comparable SUVs.

In examining a subset where the initial and the principal impact were both coded at the same rear positions, and the vehicle did not roll over in the crash, Grand Cherokees also has a much higher rate of fire occurrence, 27.3 percent (12 fires in 44 rear impacts) compared to all other utility vehicle studied, 8.7 percent (9 fires in 103 rear impacts). Since the vehicle was redesigned to protect the fuel tank, there has been only one crash involving a 2008 Grand Cherokee resulting in a fuel tank fire and deaths – in that case the occupants died from their injuries after being ejected during a rollover.

The Center believes that the agency should grant its petition because Grand Cherokee's problems are more pronounced that the Pinto's in 1978, when the agency issued its initial defect report. (A total of 38 fire crashes resulting in 26 deaths in the Pinto.)

## Toyota's Mounting Troubles

(*Cont. from p. 5*)

and passwords, who have access to documents. Toyota lawyers also have permission to physically inspect copies of the documents in the constant presence of an IKON employee. Toyota lawyers may not copy the documents in any form.

Toyota has until Dec.11 to submit its privilege log.

Finally, an Idaho fatal crash case is raising new questions about what Toyota really knew about the rate of relay rod failures in their trucks, when the automaker knew it and why its recall rate is so low. Attorney John Kristensen is representing the family of Michael "Levi" Stewart, who died in September 2007, after the relay rod in his 1991 truck failed, causing a loss-of-control crash.

Toyota recalled the vehicle in Japan in 2004, claiming it only knew of 11 complaints. Two years later, according to the Japanese media, the automaker admitted that it knew of more than 80 complaints. Toyota told NHTSA that there were no complaints in the U.S. before 2004, but Kristensen's investigation into that claim revealed that Toyota knew it had a problem with the component as early as 1988, and had been contacted by consumers at least 40 times about relay rod fractures.

The September 2005 recall for relay rods in MY 1989-1996 Toyota trucks only succeeded in repairing 32 percent of the vehicles – well below the 70 percent standard.

***More on:*** ***Toyota SUA***

## TCI Tries to Throw Old Safety Recalls under the Bus; NHTSA Recall Enforcement Stalled

WASHINGTON, D.C. – In May 2005, the National Highway Traffic Safety Administration tested the ironically named Sturdibus HD model, built by the U.S. Bus Corporation. The compliance check at the MGA Research Center revealed that the school bus failed three critical elements of crashworthiness: a restraining barrier located in front of the forward-most seat had improper or missing welds on the barrier support; the adhesive applied to the roof seams was inadequate; the glazing in the rear emergency window was not properly anchored in the frame.

The manufacturer, located in Suffern New York, duly filed three separate notices of defect and noncompliance; identified the recall population, proposed remedies and filed quarterly reports. But the information contained in some of those reports was odd. Take Recall 05V-255, for instance. In August 2007, U.S. Bus Corp filed its last quarterly report to the agency detailing its progress in fixing the barrier support problem, which was to install additional reinforcements in the barrier frame. The company indicated that it had inspected 154 vehicles suspected to have the missing or improper welds, but two years later, had remedied none of them. Three months later, U.S. Bus Corp transferred its assets to the Transportation Collaborative Inc., another Rockland County entity, located just 15 miles away in Warwick, New York. And the fate of the 154 school buses with compromised barrier support welds remained a mystery.

Later this month, NHTSA expects to begin publicly untangling the snarled past of U.S. Bus Corp., and the future liability of TCI, when it holds a rare hearing on recall noncompliance in 15 campaigns going back to 2001. The defects ranged from more minor infractions, such as a misplaced mirror use label to very serious violations, such as seat anchorages that don't meet the minimum standards. (U.S. Bus Corp buses subsequently failed compliance testing in 2006 and 2007.) The public hearing's intent is to determine if TCI has met its obligations to complete the recalls.

The agency was tight-lipped about the case. Spokesman Rae Tyson would only say: "We are holding the hearing because we do not believe that the company or its predecessor met its obligations to complete these recalls."

Under the Safety Act, manufacturers are "obligated to notify and to perform the remedy in a reasonable amount of time," he added. "There are penalties for failing to disclose and failing to notify."

The agency has concluded that in some cases, neither owners, nor dealers were notified of the recall. The paucity of remedied vehicles appears suspect, given that many of the defects were significant safety deficits on hundreds of vehicles transporting school children from Saipan to Los Angeles – some of which were purchased by large and well-known school transportation companies like Laidlaw. In total, from 2001 to 2007, U.S. Bus Corp filed 21 defect and non-compliance reports to the agency. By mid 2007, according to the Federal Register Notice, "U.S. Bus had committed to completing a number of recall and remedy campaigns that would require substantial repairs." But the information filed by the company was confusing, at best, and often indicated a very low rate of repair.

NHTSA Recall No. 06V–443 involved 96 MY 2000–2006 Sturdibus vehicles built with seat back barriers that did not match the contour of the seats on which they were installed, a violation of FMVSS No. 222, School Bus Passenger Seating and Crash protection. According to one of U.S. Bus Corp's quarterly reports, it had notified all the owners and had shipped repair kits to them. In a Nov. 19, 2007 response, "U.S. Bus reported that 96 remedy parts kits were shipped and 5 vehicles were repaired. However, in the same document, U.S. Bus reported that the parts are available for shipping," the Federal Register notice said.

### *A Bus Company by any Other Name*

According to the Federal Register notice, the agency believes that the case against TCI is strengthened by the fact that the "sale" of U.S. Bus Corp to TCI (also doing business as Trans Tech Bus) in November 2007 appeared to be a paper transfer between common owners – possibly to avoid dealing with the costly repairs indicated in the recall remedies. U.S. Bus and TCI "have continuity of ownership, management, personnel, assets, and general business operations. Based on available information, the shareholders of both U.S. Bus and TCI—Debra Bess Deutsch-Corr, Steven Marksohn, Jerome B. Marksohn, Bart Marksohn, and Helena Marksohn—are the same," the agency said in its Federal Register notice

According to New York State Secretary of State business records, U.S. Bus Corp. was the fourth iteration of a company that started its existence as Northeast Truck and Bus Repairs, Inc. It was first registered with the state in 1985; from 1992 to 2001, it was U.S. Bus Manufacturing, based in Suffern, N.Y. under the direction of CEO Irwin Kushner. Although TCI says that U.S. Bus Corp has ceased doing business, it is still registered with New York State as an active business entity. (The information on the Secretary of State website is provided by the companies themselves and the state does not guarantee their accuracy.)

Beginning in 1998, according to New York State records, the company has been the subject of liens from the Internal Revenue Service, Financial Federal Credit Inc, The CIT Group/Financing Equipment Inc. and HSBC Bank USA. Other creditors, including GMAC and JP Morgan Chase Bank have filed liens on TCI in recent years.

After U.S. Bus Corp passed into the hands of TCI, NHTSA served the company with a special order to investigate "the outstanding recalls, the asset sale and the ownership, activities, and management of both companies from TCI, U.S. Bus, and their management. After reviewing this information, NHTSA has tentatively concluded that TCI, as the successor of U.S. Bus, is legally responsible for completing the notification or remedy campaigns for the outstanding U.S. Bus recalls.

### *How Recall Enforcement Works*

Public hearings involving recall non-compliance issues are relatively rare. The last one was scheduled in December 2008 over BMW's refusal to conduct a recall of Mini-Cooper S Vehicles, which were cited for burn hazards from the exhaust pipe tips which protruded at the center rear of the vehicle. Despite "numerous complaints" from consumers who had suffered leg burns while doing mundane tasks, such as unloading groceries from the trunk, BMW was only willing to conduct a "service campaign," according to a Federal Register notice announcing the hearing. Two weeks before the hearing, BMW capitulated and announced a recall to replace the protruding exhaust pipes with a shorter version.

But getting to this point is more art than science. The agency has no set procedures for determining if a manufacturer has adequately met its recall obligations. Tyson says that the agency does monitor notification and recall completion rates, but there is no threshold for the percentage of defects remedied.

"It's a case by case situation," Tyson said. "If we see a fairly poor completion rate, we will ask and do ask for another round of notifications. The companies need to be responsive to requests for further notification."

Ignoring NHTSA's requests for renotifications can trigger a public hearing, such as the one TCI is facing. A search of the recall records in that case however, only show the agency occasionally reminded U.S. Bus Corp to file a missing quarterly report.

The agency, in general, has been hampered in its quest to track defect information in a way that could lead to recalls and higher recall rates. In 2004, the Inspector

(*Cont. on p. 8*)

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## TCI Tries to Throw Old Safety Recalls under the Bus; NHTSA Recall Enforcement Stalled

(*Cont. from p. 7*)

General's Office audited the agency's progress in implementing the provisions of the Transportation Recall Enhancement, Accountability and Documentation (TREAD) Act. It found that NHTSA had made substantial progress, but still lacked the ability to predict trends. The Advanced Retrieval (Tire, Equipment, Motor Vehicle) Information System (ARTEMIS), which became operational in 2004, was supposed to help the agency crunch the numbers.

The OIG found that ARTEMIS "does not have the advanced analytical capabilities originally envisioned to help point analysts to potential safety defects. For example, the system cannot automatically notify analysts if consumer-reported complaints and manufacturer-reported warranty claims are both increasing due to vehicle steering problems. According to NHTSA officials, delays in acquiring these capabilities will prevent NHTSA from obtaining full value from the EWR information manufacturers report. While ARTEMIS will automatically point analysts to deaths that manufacturers report so that trends in small numbers of fatalities can be detected, ARTEMIS will not, as currently developed, link deaths to an alleged defect or identify relationships between the categories of EWR information. In short, ARTEMIS cannot perform more advanced trend and predictive analyses that were originally envisioned as being needed to identify defects warranting investigation."

## Ford Recalls Windstar for CCDS Failures; Largest "Rolling Recall" in Ford History

(*Cont. from p. 5*)

switch away from the grounded hexport body.

ODI collected 19 switches and 3 ABS modules from vehicles that had burned and subjected them to live burn testing, detailed chemical and polymer analysis, vacuum testing, cycle endurance testing, and electrolysis analysis. The investigators found that while the vertically down orientation slows the process, it does not stop it entirely. Given enough time and wear, the switch can fail and ignite a fire. They also discovered that the leak can also travel to the "hot" ABS module and ignite an ignition-off fire. In some model years, the switch and the ABS share one or two common wires, allowing the brake fluid to migrate from the master cylinder through the switch, and down the wiring harness to the ABS module, filling it with brake fluid and setting the stage for a short circuit.

In comparing fire rates among peer vehicles, the agency found that the average fire rate for the Windstars was 7.2 fires per hundred thousand vehicles, compared to 2.7 for the Odyssey and Sienna. The analysis also indicated that Windstars were catching fire at comparable rates to the previously recalled Ford vehicles.

"Over time, after three to six years in service the engine fire rates on the subject vehicles increased to rates above previous years in service. This change in engine fire rate would suggest that the Windstar vehicle was generally taking 3 to 4 years to fail and cause the fire. From previous investigations, it is known that the SCDS is a component that takes approximately 3 to 6 years to fail and cause a fire," ODI said in the closing report.

As it did with the other vehicles affected by the CCDS, Ford is offering the installation of a fused wiring harness to eliminate the potential fire risk. Windstars with a leaking switch will have to have the vehicle inspected and if necessary, receive a free repair of the ABS connector module.