ATV comment

Stevenson, Todd A.

From: Groner, Jonathan [GronerJ@chi.osu.edu]
Sent: Thursday, January 30, 2003 4:46 PM
To: 'cpsc-os@cpsc.gov'
Subject: Petition CP- 02- 4/HP- 02- 01

Enclosed is a research project on ATV injuries presented at the annual meeting of the American Public Health Association in 2001

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<<ATV injuries.doc>>

The increasing risk of pediatric injury from motorized recreational vehicles

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Motorized recreational vehicles (MRVs) have been used by children for decades. Early versions of these "toys" – often home-built go-carts or minibikes – were later supplanted by commercially manufactured vehicles. In 1971, Honda introduced the all-terrain vehicle (ATV) for commercial or industrial use, but this product became an extremely popular recreational vehicle as well. ATVs are gasoline-powered vehicles generally weighing 136 to 272 kg with oversized low pressure tires, and handlebars for steering. Originally, both three-wheel and four-wheel designs were sold. Like minibikes and go-carts, ATVs are not "street-legal," offer minimal occupant protection or restraint, and are capable of reaching dangerous speeds.

In 1975, pediatric injuries caused by MRVs were labeled and "epidemic" by a major medical journal. In 1988, following numerous reports of pediatric ATV injuries and deaths, ATV manufacturers agreed to: 1) stop the sale of three-wheeled ATVs, 2) provide warnings about dangerous riding practices, 3) prohibit the sale of adult-sized ATVs to children, and 4) develop a voluntary standard to make ATVs safer.

Nevertheless, despite these regulatory efforts, numerous reports of pediatric injuries from ATVs and other recreational vehicles have continued to appear. The purpose of this study was to describe the trend of serious pediatric injuries related to MRV crashes over time in a pediatric population. We defined motorized recreational vehicles as off-road dirt bikes, four-wheelers, three-wheelers, go-carts, motorcycles, mopeds, minibikes, and other all terrain vehicles.

Method:

Sources of Information. Injury statistics for motorized recreation vehicles were compiled from the Children's Hospital Trauma Program Registry. Children are included in the Registry if they are admitted into the hospital for at least one day or if they die prior to admission. Information was available for complete years from 1992 through 2000. Automobile injuries from the same database were used as a reference population. Population estimates were obtained from the U.S. Census statistics by age, gender and county. Statewide license statistics on number of automobile and number of motorcycles, mopeds, and four wheel bike registrations were obtained from the Ohio Department of Public Safety.

Statistical Adjustments. The number of injuries was adjusted by population and reported as numbers of injuries per 100,000 population to control for the growth of the pediatric population in Central Ohio over the period covered. Population adjustments and number of automobile injuries were restricted to the age range of the motorized recreational vehicle injuries. An approximate relative risk of recreational vehicles to automobiles was determined using the ratio of Central Ohio recreational vehicle injuries to total State recreation vehicle licenses to number of Central Ohio automobile injuries to number of Ohio licensed vehicles. The statewide ratio of recreational vehicle registrations to automobile registrations served as a proxy to the number of vehicles available in Central Ohio.

Graphical Representation. The trend over time was illustrated with two line graphs showing the rate of injuries by gender and vehicle type. One chart was presented using an arithmetic scale to illustrate the raw rates and demonstrate the relative numbers of injuries for the time period. The second presented the same data on a semi-log chart. The log chart turns ratios into differences

enabling one to observe the relative magnitude of change from year to year for different types of vehicles even though the overall number of injuries differs greatly. The relative risk of motorized recreational vehicles to automobile injuries is illustrated in bar charts.
Statistical Analysis. Statistical significance of changes over time was assessed with regression analyses. Other comparisons were made using Chi Square analyses. Basic frequencies and means describe the sample.

Results:

Sample. The Trauma Registry included 281 motorized recreational injuries and 1066 automobile injuries from 1992 through 2000. Table 1 describes the basic demographics of the two populations. Injured children riding recreational vehicles tended to be older and more likely male. Table 2 lists the types of motorized recreation vehicles involved in the injuries.

Table 1. Demographics of Motorized Vehicle Injuries

	Motorized Recreation Vehicle Injuries	Automobile Injuries	Statistics
Number	281	1066	
Male	82.6%	51.4%	ChiSq=88.6, p<.001
Age	11.2, 3.4SD	9.4, 4.8SD	t=6.1,p<.001
Died	1.1%	2.7%	ChiSq=2.6,p=0.106
ISS	10.4, 8.2SD	10.2, 10.4SD	t=0.2,p=.208

Table 2. Motorized Recreational Vehicle

Type of Vehicle	Injuries	Percent
3 wheeler	18	6.4
4 wheeler	62	22.1
Dirt Bike	35	12.5
Go-cart	19	6.8
Minibike	6	2.1
Moped	13	4.6
Motorcross	16	5.7
Motorcycle	46	16.4
ATV not specified	57	20.3
RVC not specified	9	3.2
Total	281	100

Trends. Both the rate of recreational vehicle injuries (b=4.4, R2 = .88, p<.001) and the rate of automobile injuries (b=5.6, R2= .60, p=.014) increased from 1992 through 2000 (Figure 1). Semi-log charts were created which demonstrated that the rate of motorized recreation vehicles injuries was increasing more rapidly than automobile injuries. In Figure 2, it was evident that the rate of increase for motorized recreational vehicles injuries was greater than the rate of increase for automobile injuries (p=.009). While there was no difference in gender for automobile injuries (Figure 2, p=.355). In Figure 1 the slope of the line for male recreational motor vehicle injuries was greater than the corresponding slope for females (p=.006). However in Figure 2 the

slopes for recreational motor vehicles were not different (p=.687) for gender. The semi-log chart of Figure 2 illustrates the relative change from year to year within the context of the number of injuries for each subgroup. The implication here is that the number of recreational injuries are considerably for males than females, but the growth in the injuries is about the same for both males and females. And while there is a corresponding growth in serious automobile injuries even after controlling for population growth, the automobile injury growth is less than the growth of motorized recreational vehicle injuries.

Relative Risk. There were more automobile injuries than motorized recreation vehicles over the period 1992-2000. Figure 3 shows the relative risk of recreation vehicle injury to automobile injury after controlling for the number of vehicles available. This is only an approximate risk as the actual number of vehicles available is not known, but estimated by vehicle registrations. Clearly the risk of injury for on a recreational vehicle males is significantly greater.

Conclusion: Despite attempts at industry regulation, motorized recreational vehicles continue to be a major health hazard to children. Furthermore, although boys are injured more often than girls, the injury rate for both genders is increasing, even compared to their injury rates for automobile crashes. A broader public health initiative must be developed to combat this injury epidemic.

Figure 1. Serious Injuries on Motorized Vehicles

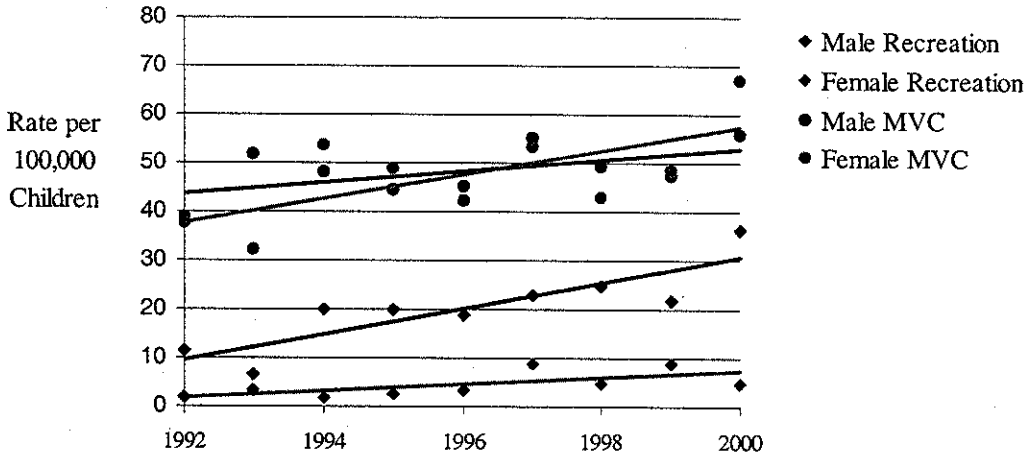


Figure 2: Serious Injuries on Motorized Vehicles

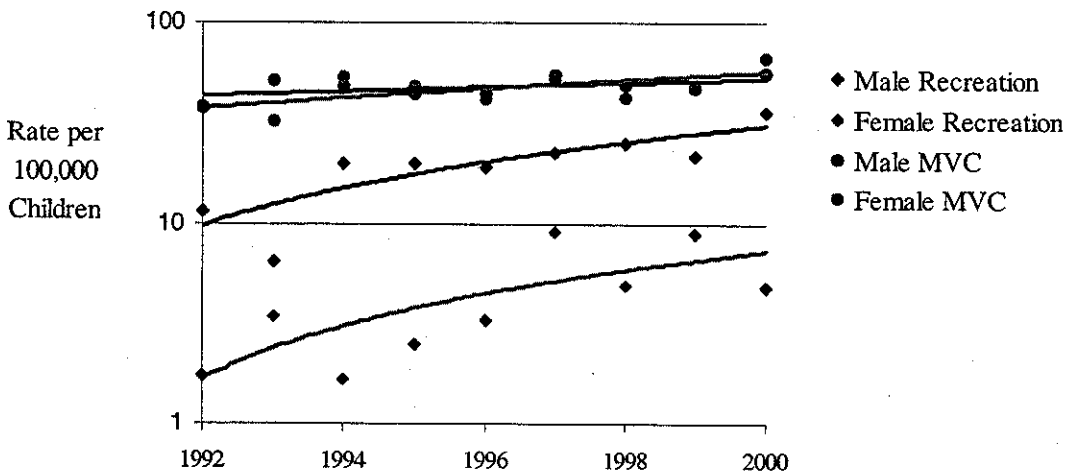
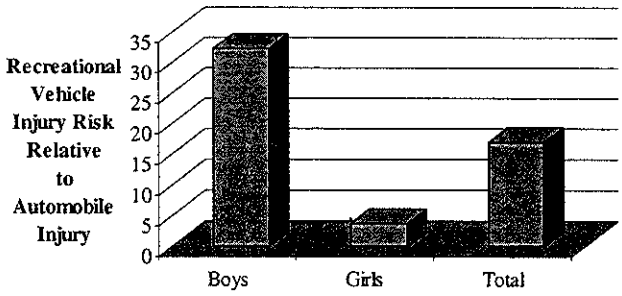


Figure 3. Relative risk based on number of vehicle registrations.



Allegheny County Health Department

ATV comment 59

DIRECTOR
Bruce W. Dixon, M.D.

Maternal & Child Health Program
907 West Street – 2nd Floor
Pittsburgh, PA 15221
Phone: 412-247-7955
FAX: 412-247-7959

February 6, 2003

Todd Stevenson
Secretary
U.S. Consumer Product Safety Commission
4330 East-West Highway
Bethesda, MD 20207

RE: Petition to Ban All-Terrain Vehicles for Use by Children Under Age 16: CP-02-4/HP-02-1

Dear Mr. Stevenson:

On behalf of Allegheny County Child Death Review Team located in Pittsburgh, Pennsylvania, I am writing to support a petition submitted to the U.S. Consumer Product Safety Commission (CPSC) by the Consumer Federation of America (CFA) and other parties, which requests a ban of adult all-terrain vehicles (ATVs) for use by children under the age of 16. As ATVs pose an unreasonable risk of death and injury to children, the Allegheny County Child Death Review Team supports most of the provisions of this petition.

The Allegheny County Child Death Review Team was established in 1997 with the goal of reducing child deaths. Through this program, a team of professionals including physicians, from all major hospitals in Pittsburgh, police officers, health department staff, Children Youth & Families, Coroner's office, District Attorney's office, Traffic Safety specialists, Injury prevention experts, Pittsburgh City School officials, and Juvenile Court personnel, volunteer their time to perform individual confidential case reviews of deceased children in Allegheny County. The purpose of this review is to enable our County to better identify the causes and manners of child deaths, to better share information between professionals and organizations involved in responding to child fatalities, and finally to develop and implement methods for preventing future child deaths.

Especially after reviewing deaths related to ATV crashes, our team believes that ATVs should not be operated by children ages 15 and under. ATVs are inherently difficult for adults to operate and beyond the developmental capability of children to control. This concept, coupled with the increased number of associated injuries and fatalities, show that there are inherent dangers to children driving adult ATVs. In fact, many of the conclusions found in the CPSC's most recent research (*Consumer Product Safety Commission, Annual Report:2001 All-terrain Vehicle [ATV]-related Deaths and Injuries*, August 2002) clearly demonstrate that there is presently a substantial risk of death and injury. Death and injury that was to be addressed by consent decrees, action plans and consumer education and labeling. Significantly, between 1982 and 2001, 1,714 children under age 16 - including 799 under the age of 12 - were killed in ATV incidents. Furthermore, between 1993 and 2001, the number of ATV-related injuries by children under age 16 increased 94 percent to 34,800. The CPSC data also revealed that while only 14

percent of all ATV riders were children under the age of 16, these children disproportionately suffered approximately 37 percent of all injuries and 38 percent of total fatalities between 1985 and 2001.

In our view, banning ATVs for children would not require removal of the products from the marketplace, but simply preclude ATV manufacturers and retailers from marketing their products to children. Additionally, ATV salespeople would be required to warn potential purchasers about the dangers of the product and ask parents if the ATV was being bought for a child under age 16. These measures, if properly enforced, would pass on vital safety information to parents as well as help to prevent child ATV-related incidents from occurring in the first place by preventing the sale of the vehicle if it is known or reasonably believed that the product will be used by children under 16. Additionally, our Team supports increased educational efforts, labeling, and instructions - targeted at current owners of ATVs to remind them of the potential dangers of these devices.

If you would like any addition information on Allegheny County Child Death Review or our affiliation with the National SAFE KID Campaign, please don't hesitate to contact me at {412-247-7955, or e-mail rsterner@achd.net.

Sincerely,

Roy Sterner
Public Health Administrator
Team Coordinator
Allegheny County Child Death Review

SAFE KIDS
of Savannah
Coalition

P.O. Box 14257 • Savannah, GA 31416-1257 • (912) 353-3148 • (912) 356-2160 • Fax (912) 356-2969

ANPR Comment 60

February 11, 2003

Todd Stevenson
Secretary
U.S. Consumer Product Safety Commission
4330 East-West Highway
Bethesda, MD 20207

RE: Petition to Ban All-Terrain Vehicles for Use by Children Under Age 16:
CP-02-4/HP-02-1

Dear Mr. Stevenson:

On behalf of the SAFE KIDS of Savannah Coalition, I am writing to support a petition, submitted to the U.S. Consumer Product Safety Commission (CPSC) by the Consumer Federation of America (CFA) and other parties, which requests a ban of adult all-terrain vehicles (ATVs) for use by children under the age of 16.

The SAFE KIDS of Savannah Coalition has for the past 11years promoted the prevention of unintentional injuries to children in our community. We have a very active membership that embraces representatives from over 30 organizations in Chatham County. These representatives include nurses, pediatricians and other health professionals, firefighters, police officers, business owners, school personnel and parents. Our efforts involve collecting and analyzing data, developing and conducting educational programs, implementing environmental changes, and promoting prevention through advocacy and public awareness campaigns.

SAFE KIDS of Savannah believes that ATVs should not be operated by children ages 15 and under. ATVs are difficult for adults to operate and are beyond the developmental capability of children to control. The CPSC's most recent research (*Consumer Product Safety Commission, Annual Report: 2001 All-terrain Vehicle [ATV]-related Deaths and Injuries*, August 2002) clearly demonstrate that there is presently a substantial risk of death and injury. **Significantly, between 1982 and 2001, 1,714 children under age 16 – including 799 under the age of 12 – were killed in ATV incidents. Furthermore, between 1993 and 2001, the number of ATV-related injuries by children under age 16 increased 94 percent to 34,800. The CPSC data also revealed that while only 14 percent of all ATV riders were children under the age of 16, these children disproportionately suffered approximately 37 percent of all injuries and 38 percent of total fatalities between 1985 and 2001. In Georgia, between 1982 and 1999, there were 94 deaths associated with ATV usage.**

In our view, banning ATVs for children would not require removal of the products from the marketplace, but simply preclude ATV manufacturers and retailers from marketing their products to children. Additionally, ATV salespeople would be required to warn potential purchasers about the dangers of the product and ask parents if the ATV was being bought for a child under age 16. SAFE KIDS of Savannah supports enforcement of these measures, as well as increased educational efforts, labeling, and instructions as a reminder of the potential dangers in the use of ATVs.

Contact me at 912 353-3148 or jbgarrison@gdph.state.ga.us for additional information on the SAFE KIDS of Savannah Coalition and our affiliation with the National SAFE KIDS Campaign.

Sincerely,

Jane Garrison, Coordinator
SAFE KIDS Coalition of Savannah

ATV comment 61

02/12/13

Office of the Secretary
Consumer Product Safety Commission
Washington, District of Columbia
20207-0001 United States of America

Subject: Petition CP-02-4/HP-02-1, Petition on ATVs

Dear Secretary:

I urge the Commission to issue a regulation that prohibits the sale of adult-size four-wheel all-terrain vehicles (ATVs) for use by children under 16 years old as requested in the above referenced petition. The growing number of ATV-related injuries and fatalities demonstrates that the Commission must take proactive steps to address a serious product safety problem.

The Commission is well aware of the rising tide of injuries and deaths caused by ATV-related accidents. The consistent, and troubling, upward trend throughout the 1990s demonstrates that the Commission can no longer defer to the ATV industry when it comes to safety. The current voluntary approach, embodied in the "ATV Action Plans" is failing in every respect. The core tenet of this approach is the pledge by manufacturers not to sell adult-size ATVs (defined as machines with engines larger than 90 cc) for use by children under 16. A recent investigation by Good Morning America (GMA) raises serious questions about the effectiveness of this approach.

As reported on November 8, GMA visited or called 10 randomly selected ATV dealers nationwide and asked salespeople to recommend an ATV for a 14-year-old child. Nine of the ten dealerships recommended an adult-size ATV with full knowledge that it was being purchased in violation of the industry's age limits. Many dealers recommended the adult-size machines without caveats while one explained the age restrictions, then proceeded to tell the reporter how to evade them.

The evidence available to the Commission through annual surveys and more comprehensive studies proves that the industry-dominated approach to ATV safety is ineffective. It is time to set a new direction at the national level. This effort must be led by the Commission and begins with the issuance of a regulation that prohibits the sale of adult-size four-wheel ATVs for use by children under 16.

ATV Comment 62

Morristown Memorial Hospital
ATLANTIC HEALTH SYSTEM

Northern
New Jersey
SAFE KIDS
Campaign

February 19, 2003

Todd Stevenson
Secretary
U.S. Consumer Product Safety Commission
4330 East-West Highway
Bethesda, MD 20207

RE: Petition to Ban All-Terrain Vehicles for Use by Children Under Age 16:
CP-02-4/HP-02-1

Dear Mr. Stevenson:

On behalf of Northern NJ SAFE KIDS and Morristown Memorial Hospital , I am writing to support a petition, submitted to the U.S. Consumer Product Safety Commission (CPSC) by the Consumer Federation of America (CFA) and other parties, which requests a ban of adult all-terrain vehicles (ATVs) for use by children under the age of 16. As ATVs pose an unreasonable risk of death and injury to children, Northern NJ SAFE KIDS and Morristown Memorial Hospital supports most of the provisions of this petition.

As you may know, Northern NJ SAFE KIDS and Atlantic Health Systems's Morristown Memorial Hospital a Regional Trauma work together to to heighten awareness of unintentional injury.
Northern NJ SAFE KIDS believes that ATVs should not be operated by children ages 15 and under. ATVs are inherently difficult for adults to operate and beyond the developmental capability of children to control. This concept, coupled with the increased number of associated injuries and fatalities, show that there are inherent dangers to children driving adult ATVs. In fact, many of the conclusions found in the CPSC's most recent research (*Consumer Product Safety Commission, Annual Report:2001 All-terrain Vehicle [ATV]-related Deaths and Injuries*, August 2002) clearly demonstrate that there is presently a substantial risk of death and injury. Death and injury that was to be addressed by consent decrees, action plans and

consumer education and labeling. Significantly, between 1982 and 2001, 1,714 children under age 16 – including 799 under the age of 12 – were killed in ATV incidents. Furthermore, between 1993 and 2001, the number of ATV-related injuries by children under age 16 increased 94 percent to 34,800. The CPSC data also revealed that while only 14 percent of all ATV riders were children under the age of 16, these children disproportionately suffered approximately 37 percent of all injuries and 38 percent of total fatalities between 1985 and 2001 As a Regional Trauma Center, Morristown Memorial Hospital cared for 32 patients who's were injuried on ATV's in 2002. Ten of these patients were children under the age of 14.

In our view, banning ATVs for children would not require removal of the products from the marketplace, but simply preclude ATV manufacturers and retailers from marketing their products to children. Additionally, ATV salespeople would be required to warn potential purchasers about the dangers of the product and ask parents if the ATV was being bought for a child under age 16. These measures, if properly enforced, would pass on vital safety information to parents as well as help to prevent child ATV-related incidents from occurring in the first place by preventing the sale of the vehicle if it is known or reasonably believed that the product will be used by children under 16. Additionally, Northern NJ SAFE KIDS supports increased educational efforts, labeling, and instructions – targeted at current owners of ATVs to remind them of the potential dangers of these devices.

If you would like any addition information on Northern NJ SAFE KIDS or our affiliation with the National SAFE KIDS Campaign, please don't hesitate to contact me.

Sincerely,

Karen Jean Feury RN, APN, BC
Injury Prevention Coordinator
Northern NJ SAFE KIDS / Morris County Safe Communities
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PENNSYLVANIA SAFE KIDS COALITION

PENNSYLVANIA SAFE KIDS COALITION

January 21, 2003

Todd Stevenson
Secretary
U.S. Consumer Product Safety Commission
4330 East-West Highway
Bethesda, MD 20207

RE: Petition to Ban All-Terrain Vehicles for Use by Children Under Age 16: CP-02-4/HP-02-1

Dear Mr. Stevenson:

On behalf of the Pennsylvania SAFE KIDS Coalition, I am writing to support a petition, submitted to the U.S. Consumer Product Safety Commission (CPSC) by the Consumer Federation of America (CFA) and other parties, which requests a ban of adult all-terrain vehicles (ATVs) for use by children under the age of 16. As ATVs pose an unreasonable risk of death and injury to children, Pennsylvania SAFE KIDS supports most of the provisions of this petition.

Through our 13 coalitions and 27 chapters, we work at the grassroots level to prevent injuries to children. Much of Pennsylvania is rural. We have received requests from our constituents to tackle the issue of ATV use by children younger than 16.

Pennsylvania SAFE KIDS believes that ATVs should not be operated by children ages 15 and under. ATVs are inherently difficult for adults to operate and beyond the developmental capability of children to control. This concept, coupled with the increased number of associated injuries and fatalities, show that there are inherent dangers to children driving adult ATVs. Furthermore, between 1993 and 2001, the number of ATV-related injuries by children under age 16 increased 94 percent to 34,800. The CPSC data also revealed that 37 percent of all injuries and 38 percent of total fatalities occur to children under sixteen. State rates of ATV injury are difficult to capture, but the anecdotal information from the local SAFE KIDS groups received clearly shows a problem with youngsters riding these vehicles. In Fulton County 4 young people have lost their lives to ATV injuries.

In our view, banning ATVs for children would not require removal of the products from the marketplace, but simply preclude ATV manufacturers and retailers from marketing their products to children. Additionally, ATV salespeople would be required to warn potential purchasers about the dangers of the product and ask parents if the ATV was being bought for a child under age 16. These measures, if properly enforced, would pass on vital safety information to parents as well as help to prevent child ATV-related incidents from occurring in the first place by preventing the sale of the vehicle if it is known or reasonably believed that the product will be used by children under 16. Additionally, the Pennsylvania SAFE KIDS Coalition supports increased educational efforts, labeling, and instructions – targeted at current owners of ATVs to remind them of the potential dangers of these devices.

If you would like any additional information please don't hesitate to contact me at 717-763-1890 or afranchak@csiu.org..

Sincerely,

Anne Franchak

Anne Franchak
Director

1300 Market Street ❖ Suite 12 ❖ Lemoyne, Pennsylvania 17043
1-800-683-5100 ❖ 717-763-1890 ❖ Fax 717-763-2083 ❖ E-mail pasafekids@bigfoot.com

ATV Unnumb 67

American Pediatric Surgical Association

60 Revere Drive, Suite 500 • Northbrook, IL 60062 • (847) 480-9576 • Fax (847) 480-9282

R. Peter Altman, M.D., President

Children's Hospital of New York-Presbyterian
3959 Broadway, Suite 116 South
New York, NY 10032
Tel: 212-305-5804
Fax: 212-305-9305
E-mail: rpa1@columbia.edu

February 18, 2003

Secretary Todd Stevenson
Office of the Secretary
U.S. Consumer Product Safety Commission
Washington, D.C. 20207

Dear Secretary Stevenson,

Please consider this request from the American Pediatric Surgical Association to join the list of petitioners on the All Terrain Vehicle petition CP-02-4/HP-02-1, Petition on ATV's, filed by Consumer Federation of America, et al., to ban the use of adult-size ATV's by children under 16 years of age. As surgeons providing care for injured children, we witness first hand the unnecessary injuries children suffer because of their inappropriate use of ATV's. Children's small size, their immature motor skills, and their immature judgment render them unable to control these ever-more powerful machines. Children operating an ATV are 4.5 times more likely than an adult to suffer an injury that requires emergency care.

Each year in this country, the number of children suffering an ATV injury has increased, despite the ATV Action Plans. The large majority of these injured children are riding on adult-sized ATV's. In most jurisdictions, these children would not be allowed to operate a motor vehicle, but are allowed to operate an ATV, many of which are capable of reaching speeds in excess of 75 miles per hour.

There is no feasible consumer product safety standard that would protect children from the unreasonable risk of injury. We request that you determine that all 3-wheel ATV's and adult-sized 4-wheel ATV's for use by children under age 16 are a banned dangerous consumer product.

Respectfully submitted,

R. Peter Altman, MD

R. Peter Altman, M.D.

ATV Comment 65

Veritas DGC Land
10300 Town Park
Houston, TX 77072

3 March 2003

Office of the Secretary
Consumer Products Safety Commission
Washington, D.C. 20207
Petition CP 02-4/HP 02-1, Petition on ATVs

Dear Sir:

For more than two decades, Veritas DGC Inc. has acquired and processed seismic data for the oil and gas industry. Veritas explorations have covered the prairies, mountains and high arctic of North America. ATVs have been a key part of the operation.

- Veritas operates approximately 60 ATVs yearly.
- ATVs are utilized up to a 20 hr per day two shift operation, 364 days out of the year.
- ATVs cover an average 30 miles per day and roughly 10,000 miles per year!
- One Veritas ATV is equivalent to the same use intensity as 10 - 18 recreational ATVs.

Over the past year, Veritas has been monitoring the media discussion around the debate of ATV safety. As part of Veritas' commitment to the community, the company feels compelled to share its extensive learning and testing regarding the root cause of ATV accidents and the key steps required to reduce them.

The attached document summarizes an independently audited four year, 2.5 million ridden mile ATV safety enhancement program called "ACE". The ACE System reduced Veritas' ATV injuries from two times the CPSC rate to 1/3 the CPSC rate. As you review the many perspectives that are presented on the subject of ATV safety, Veritas would be more than willing to answer any questions that you may have behind our fact based and proven learnings on how to enhance ATV safety. Veritas is hopeful that the CPSC will recognize the rigor and depth of understanding the company has regarding ATV safety and be open to helping ACE save lives of recreational ATV users.

Sincerely,

Ray Mays

Ray Mays
Vice President of Health, Safety & Environmental
Veritas DGC Land
10300 Town Park
Houston, TX 77072
(832) 351-1017
ray_mays@veritasdgc.com
www.veritasdgc.com

Veritas, Accelerated Safety Enhancer for ATVs (ACE)

Overview

Veritas DGC Land is an operating subsidiary of VERITAS DGC Inc., which offers the oil and gas industry integrated geophysical services designed to manage exploration risk and enhance drilling and production success worldwide. Seismic services include: data acquisition (land and marine), data processing, data visualization / interpretation, survey planning and design (land and marine), and extensive non-exclusive data library surveys worldwide.

Headquartered in Houston, Texas, Veritas DGC Inc. has over 36 years of operating experience. Employing more than 3,000 employees in 19 countries on six continents the company's yearly revenues were US$456 million for fiscal 2002. Veritas DGC Inc. is one of the world's leading providers of advanced geophysical technologies and is traded publicly under the ticker symbol 'VTS' on the New York and Toronto Stock Exchanges.

Veritas recognizes that all injuries are preventable.
In order to support this Policy, Veritas will:

- Develop, implement and maintain the Veritas Integrity Management System (VIMS);
- Promote and maintain high awareness of workplace hazards, the risks associated with them and the techniques to render risks as low as reasonably practicable;
- Encourage the development, implementation and use of industry best practice;
- Ensure that employees are competent to conduct their specified tasks;
- Specify Positive Performance Indicators, set objectives, regularly review performance and recognize excellence;
- Maintain an incident reporting system that allows analysis of losses or potential losses and facilitates dissemination of the recommendations to prevent recurrence across the Company;
- Conduct regular audits and inspections of company, and where applicable, contractor facilities;
- Conduct its business operations to ensure elimination or minimal impact on the environment though prevention and conservation and by continuously improving best practices. This can be achieved in part by firstly reducing, reusing and recycling then by treating and disposing of waste in an environmentally friendly manner;
- Demonstrate continuous improvement.

All-Terrain Vehicles (ATVs) at Veritas

Whatever the environment, Veritas DGC Land crews have earned a reputation for completing the "tough jobs". For more than two decades, Veritas DGC Inc. has acquired and processed seismic acquisition programs for the prairies, mountains and high arctic of North America. ATVs have been a key part.

- Veritas DGC Land operates approximately 60 ATVs yearly.
- ATVs are utilized up to a 20 hr per day two shift operation, 364 days out of the year.
- ATVs cover an average 30 miles per day and roughly 10,000 miles per year!
- One Veritas ATV is equivalent to the same use intensity as 10 - 18 recreational ATVs.

Veritas has used four wheel All Terrain Vehicles (ATVs) on a daily basis in field operations since 1993. ATVs are an invaluable operational tool enabling field crews to transport equipment, access remote locations, and efficiently trouble shoot problems in a wide variety of terrain. Veritas also believes that the improper use of ATVs can present an inherent risk to employees.

It has been Veritas' experience that virtually all injuries suffered on ATVs are attributable to either, or both, speed and operator behavior. Speed can cause the operator to lose control, or to be unable to stop the machine in order to steer around or completely avoid an obstacle. Lack of operator training and proper personal protection equipment (PPE) compound any potential injury situation.

Accelerated Safety Enhancer (ACE) System Safety Study

In 1996 Veritas DGC Land had a fatal accident involving an ATV. It became imperative for the company to determine the root cause of ATV accidents/injuries, implement a program to reduce the accident level to one acceptable to the company's standards, or discontinue the use of ATVs all together.

In 1997 Veritas implemented an extensive safety program making it mandatory for each ATV operator to follow safety procedures. Four safety procedures were put in place:

General Equipment Operations Provisions

Transportation poses perhaps one of the greatest hazards to staff.

- Drivers are responsible for ensuring that vehicles are inspected daily
- Company mechanics are responsible for maintaining company vehicles/equipment
- Company operators are responsible for reporting any deficiencies to the mechanic
- Compliance is mandatory

Approved Driver Process

An employee must be an "Approved Driver" before operating any vehicle.

- Valid drivers license
- No DUI
- Speeding ticket and accident limits
- Complete a defensive driving course
- Complete a road skills test
- Review transportation policies

Pre-Operation Training

- All ATV operators must be thoroughly trained and hold certification from an approved ATV Safety Institute / ASI

Daily Assignment

- All riders must perform a "TCLOC" (tires, controls, lights, oil, chassis) inspection prior to operating the ATV
- All operators must use proper PPE (personal protective equipment = head protection, goggles, jacket or long sleeved shirt, gloves, long pants, over the ankle boots)
- Approved drivers must also submit daily DVIR (daily vehicle inspection report)

In addition to the safety procedures, Veritas started tracking ATV accidents through an accident investigation model *(Attachment #1& #6).* Training, retraining, reassignment and termination were the usual solutions attempted to manage injuries, however, incidents continued to occur. At the end of 1997, the Veritas ATV injury rate was twice that of the CPSC's.

Injury Rate / thousand ATVs	1997
• Veritas DGC Land	35
• **CPSC**	17

The accident investigation model provided key insights regarding root cause of ATV accidents. In almost all cases excessive speed for the riding condition was the contributing factor in causing the accident or elevating the type of injury incurred by the rider. Veritas set out to find an engineering solution to limit speed while still retaining the vehicles key performance characteristics necessary for effective operation.

Commercially available devices, such as a governor or manual throttle-stop, help limit the speed of the vehicle, but do not allow the engine to develop the RPM's required in the work environment, hence they were not acceptable solutions. Veritas engineers embarked on an internal development project to create a device that limits both engine and ground speed without compromising the needed engine RPM for steep hill climbs and movement of equipment. Veritas engineers developed a patented speed limiter (Patent No: US 6,253,142B1) that when combined with ASI certified training, proper PPE and vehicle inspections created the elements of the Accelerated Safety Enhancer (ACE) System. The ACE System has reduced Veritas' injury rate by 97% over a four year period and is the main factor for enabling the company to continue to utilize ATVs as part of its operation.

The introduction of ACE had an immediate impact on injuries. Within the first six months of roll out, ACE started reducing injuries from 18 per half (six month period) to 15 per half. By the end of the first half of 1999 injuries had been reduced to under 5 per half *(Attachment #2)*. One year after the implementation of the ACE System, Veritas' injury rate was reduced to 1/3 that of the CPSC rate! *(Attachment #3)*

Injury Rate / thousand ATVs	1997	1999
• Veritas DGC Land	35	8 ↓
• **CPSC**	17	25 ↑

Since 1999, the total number of injuries has never exceeded 5 per half and in 2001 all of the major injuries (lost time, restricted work, fatality) were entirely eliminated due to ACE *(Attachment #4)*. Veritas selected 15 mph as a maximum operating speed due to the application and type of terrain the ATVs are operated in.

The ACE System Safety Study tracked a fleet of approximately 60 ATVs operating on a daily basis. Since the study's start in 1997, records detailing over 1.1 million hours of use covering over 2.5 million miles have been compiled.

Independent ACE System Safety Study Audit

In 2002 Veritas hired an independent safety expert to review and audit the four-year ACE System Safety Study. Safety Resources, Inc. was retained to perform the evaluation. Safety Resources is a recognized leader in USA safety policies and practices providing solutions in the areas of compliance review, driver audits, driver safety training, accident investigation and injury analysis & recommendation.

Safety Resources
5106 N. Michigan Rd
Indianapolis, IN 46228
Robert Baldwin, President
(317) 202-2420
www.safetyresources.com

Excerpt from the Safety Resources Audit: *(Attachment #7)*

> *"Safety Resources was retained to conduct a blind analysis of the Veritas Safety Limiter Study Audit Report. The defined scope of the analysis was to objectively assess the credibility of the Report relative to the stated accomplishments of accident/incident reduction over a period of years from 1997 to 2002.*
>
> *A final conclusion of this analysis is that the utilization of the "speed limiter" device was an important component of what appears to be a rather expansive and complex safety management system.*
>
> *In summary, the magnitude of the accident reduction from injuries associated with ATV use is believed to be true, sustainable and transferable to other hazard exposure circumstances."*

Technology

How does it work?
Limits speed by modifying the tachometer signal to the ignition system without compromising the needed engine RPM for steep hill climbs.

What does it do to the ATV?
Limits both ground speed and engine speed by manipulating timing at the ignition control module.

What is it?

The speed limiter is a microcontroller-based system with "smart technology" enabling its use on any make or model of ATV.

How flexible is it?
The speed limiter can be utilized on any existing or new ATV and has the ability to have multiple keyed settings that provides operators/riders a choice based on terrain and skill level.

Additional ATV Safety Features Added

Veritas has also incorporated two additional mechanical safety devices on all of their ATV in order to help minimize injury. In 1996 Veritas replaced the "foot pegs" on their ATVs with platforms to minimize the chance of rider foot impingement. In 2001 a "fence catcher" bar mounted on the front of the ATV was installed to minimize rider injury due to impact with wire fences as well as low hanging tree branches.

Recreational Opportunity

Over the past year, Veritas has been monitoring the media discussion around the debate of ATV safety. As part of Veritas' commitment to the community, the company feels compelled to share its extensive learning and testing regarding the root cause of ATV accidents and the key steps required to reduce them.

Veritas does not have experience with recreational adult or youth ATV riders but feels strongly that a version of the ACE System can provide similar results when implemented in the recreational market. Following the ACE System (ASI type training, proper PPE, and speed limiting based on terrain and skill/experience level) over 54,000 injuries to riders could be prevented over the next three years (2003 – 2005) *(Attachment #5).* This ACE benefit is a very conservative estimate assuming a 10% participation rate in ASI type training. The implementation of mandatory training and PPE would significantly increase the impact of ACE on recreational ATV riders.

A modified key activated ACE System for recreational ATV use has been developed by Veritas that incorporates multiple speed settings. Multiple settings provide added flexibility in the speed limits to account for predictability of terrain (e.g. race track – highly predictable, open road - predictable, timber – highly unpredictable) and rider skill/experience vs. the single fixed setting industrial version utilized by Veritas. Implementing the multiple speed setting version of ACE provides riders and parents with a choice relating to how they operate their ATV. ACE can assist in modifying rider behavior and highlight the safety implications associated when operating at low skill/experience levels and at high speed in unpredictable terrain.

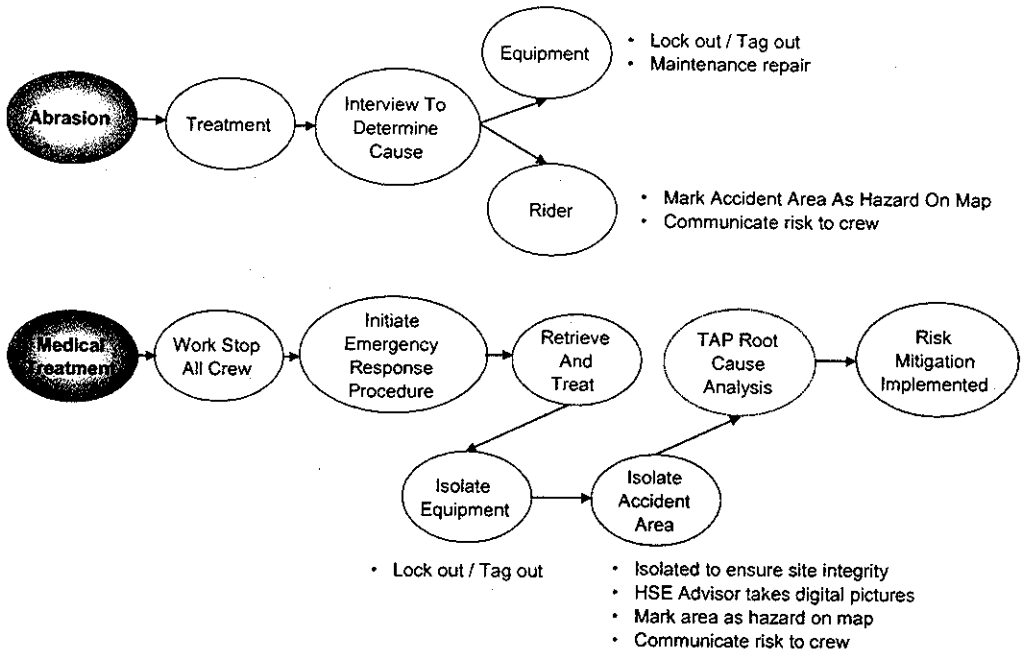
Veritas has just started to engage the manufacturers in discussions on how to help bring this landmark ATV safety system to consumers. The ACE System and it speed device can easily and cost efficiently be applied to new and existing ATVs. The mechanical components of ACE would cost manufacturers less than $50 per ATV to install. As you review the many perspectives that are presented on the subject of ATV safety, Veritas would be more than willing to answer any questions that you may have behind this fact based and proven study on how to enhance ATV safety. Veritas is hopeful that the CPSC will recognize the rigor and depth of understand the company has regarding ATV safety and be open to helping ACE save lives.

Please direct any follow up questions or comments to:

Ray Mays
Vice President of Health, Safety & Environmental
Veritas DGC Land
10300 Town Park
Houston, TX 77072
(832) 351-1017
ray_mays@veritasdgc.com
www.veritasdgc.com

Attachment #1

Veritas DGC's Implementation Of An Accident Investigation Model In 1997 Led To The Identification Of Speed As Root Cause Of ATV Accident s



TAP Root Added In 2000

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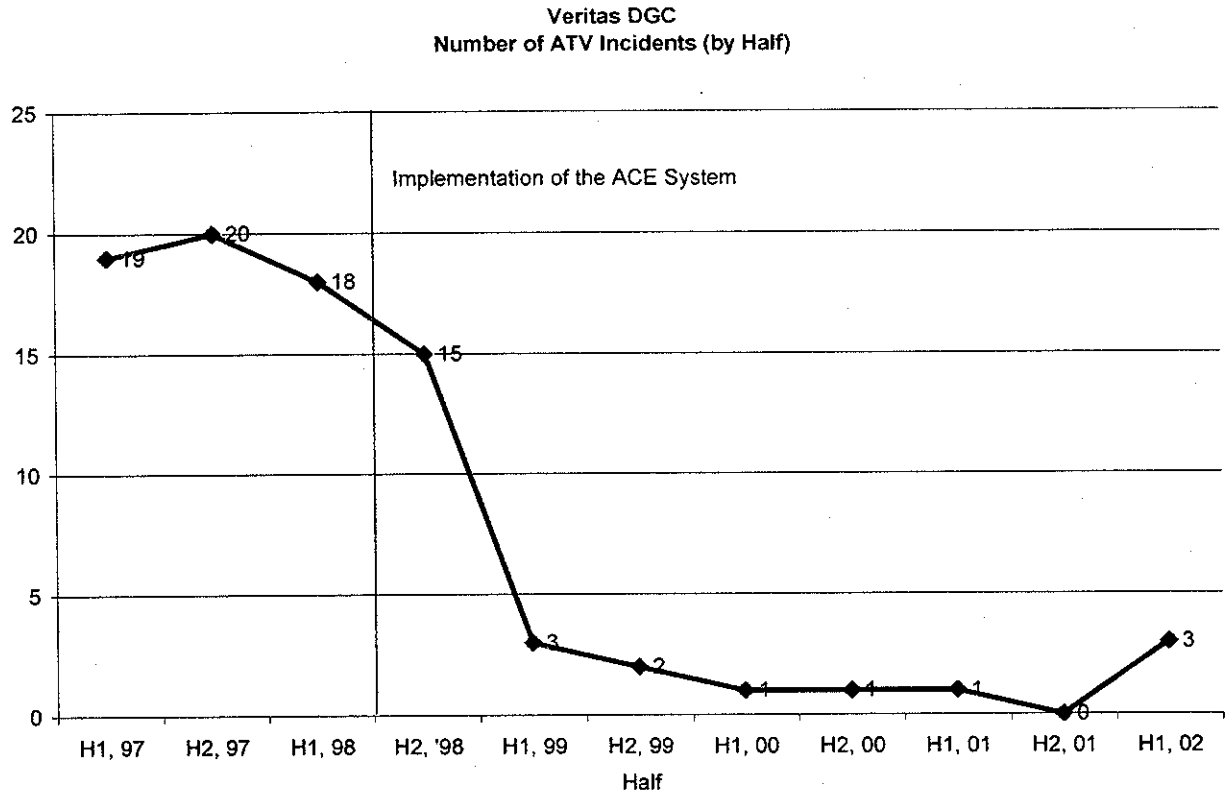
Attachment #2



Attachment #3

Veritas DGC ACE Safety Study (ATVs), USA

Safety Policy through out study:

All riders attended ASI class or approved Honda ATV Safety Institute Training and hold a certificate
All riders required to wear proper PPE (helmet, goggles, jacket or long sleeved shirt, gloves, long pants, over the anckle boots)
Starting in the second half of 1998 all ATV's were equipped with the ACE speed limiting device, speed limited to 15 mph
All riders perform daily TCLOC inspection prior to riding

	Pre Limiter	Transition	Post Limiter		
Veritas DGC	**1997**	**1998***	**1999**	**2000**	**2001**
Total Number of injuries	39	33	5	2	1
Number due to roll over	19	18	2	1	1
Number due to other	20	15	3	1	0
Percent due to roll over	49%	55%	40%	50%	100%
Number of ATV utilized	60	60	60	60	60
- Equipment utilization rate*	96%	83%	55%	75%	73%
Annual Hours of Use	283,253	244,511	162,634	221,454	215,705
CPSC est. use in miles for one ATV (1)	252	252	252	252	252
Veritas DGC Equivalent Number of ATV's	1,124	970	645	879	856
Vertias Injury Rate per ATV	0.0347	0.0340	0.0077	0.0023	0.0012
% reduction in injuries/ATV	**-97%**				
Veritas DGC ATV Operations Detail					
- Current hours per ATV/day	13.5				
- Avg miles covered per ATV/day	30				
- Operating days per year	364	(run everyday of the week ex Christmas day)			
- Avg miles per year / ATV	10,920				
- Avg hours riden per year / ATV	4,914				

CPSC	**1997***	**1998**	**1999**	**2000**	**2001**
- injuries (all ages)	54,600	70,200	84,800	95,300	111,700
- injuries (kids < 16)	21,300	26,000	28,700	33,000	34,800
- Injury rate per ATV	0.0171	0.0227	0.0245	0.0257	0.0261
Vertias DGC rate vs. CPSC	**2.03**	**1.50**	**0.32**	**0.09**	**0.04**

*ACE system intervention started second half of 1998
(1) CPSC reports in its' PART 1 of the report on 1997 ATV Injury Survey annual usage estimate for an ATV

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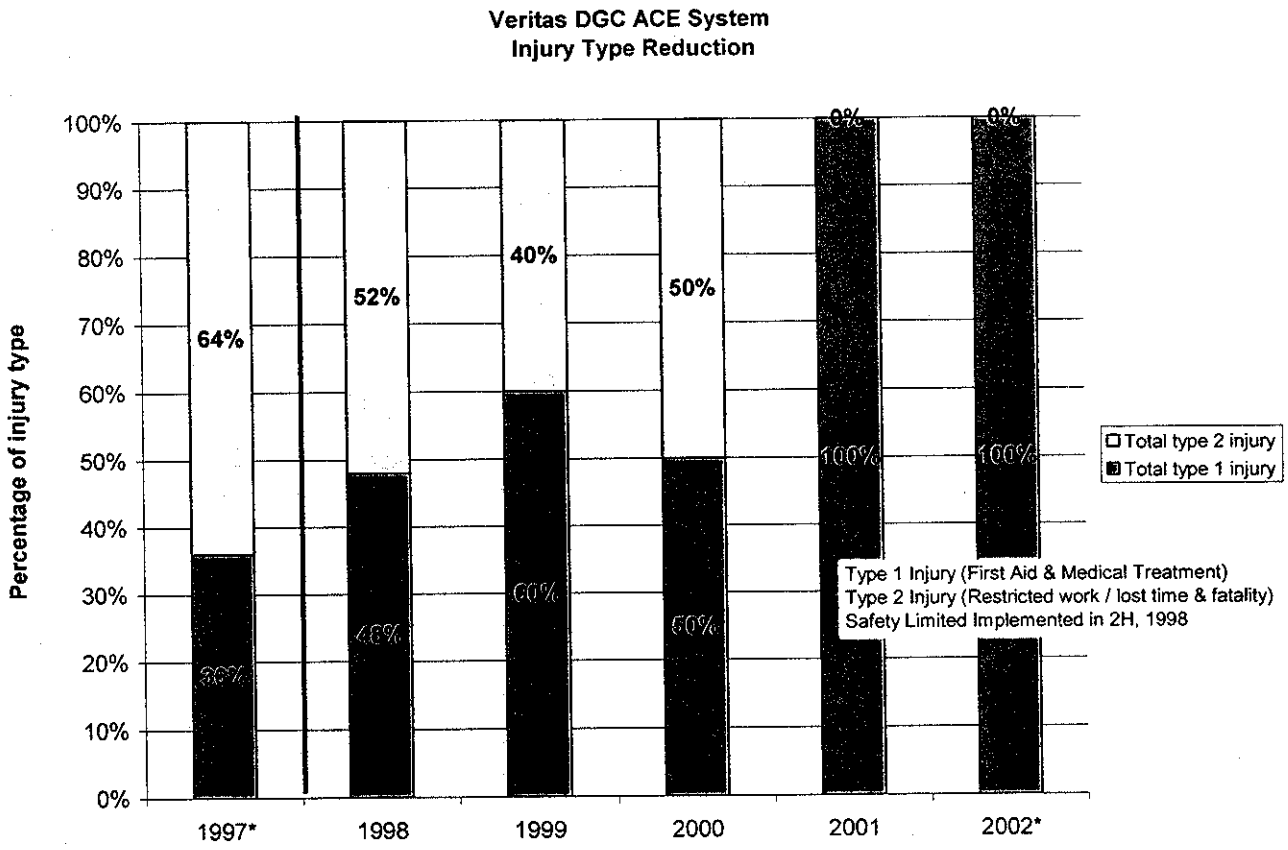
Attachment #4



Attachment #5

ACE System Recreational Impact Estimate	2003	2004	2005
Estimated ATVs (new and existing) in market (3)	7,321,546	8,611,250	10,128,138
Total miles per year ridden (4)	2,562,540,991	3,013,937,500	3,544,848,370
Injury Reduction w/ ASI and Limiter			
- % of ATV riders attending ASI	10%	10%	10%
ASI / ATV riders miles	256,254,099	301,393,750	354,484,837
- Number of Injuries with ASI training alone	15,877	18,674	21,963
- Number of injuries with ACE System (includes ASI)	535	629	740
Number of ACE prevented injuries	**15,343**	**18,045**	**21,224**
	54,612		

(3) Motorcycle industry council survey of recent ATV buyers
(4) Miles / ATV based on Motorcycle industry survey (3)
Forecast based on CAGR matching historical trend of 18% yearly sales growth

Attachment #6

Veritas DGC ATV incidents data

Date of Incident	Class	Body Part Injured	Type of Injury	Description of the incident	Remedial Actions
01/27/97	Restricted Work	Knee	Sprain	ATV tire hit object and rolled.	Not listed.
02/03/97	Restricted Work	Ankle	Sprain	ATV hit pole.	Not listed.
02/20/97	First Aid	Leg	Abrasion	Dog attacked ATV and bit worker.	Not listed.
02/23/97	Restricted Work	Shoulder	Separation	Tire came off ATV causing it to roll.	Not listed.
02/26/97	Restricted Work	Multiple	Strain & Bruise	ATV rolled descending hill.	Not listed.
03/05/97	First Aid	Elbow	Bruise	Improper ATV loading.	Not listed.
03/08/97	Restricted Work	Elbow	Strain	ATV rolled on hill.	Not listed.
03/30/97	Restricted Work	Knee	Sprain	ATV hit by object.	Not listed.
04/24/97	Restricted Work	Knee	Sprain	ATV hit object.	Not listed.
05/07/97	Restricted Work	Shoulder	Dislocation	Tire entered ditch causing the ATV to roll.	Not listed.
05/12/97	Restricted Work	Wrist	Strain	ATV rolled on hill.	Not listed.
05/12/97	Restricted Work	Back	Strain	ATV hit cement culvert.	Not listed.
05/25/97	First Aid	Ankle	Sprain	Animal ran in front of ATV and driver lost control.	Not listed.
05/27/97	Restricted Work	Wrist	Strain	ATV hit object.	Not listed.
06/06/97	First Aid	Back	Bruise	Two ATVs collided.	Not listed.
06/08/97	Medical Treatment	Forehead	Cut	Two ATVs collided.	Not listed.
06/10/97	Restricted Work	Leg	Bruise	ATV tire caught mud and rolled.	Not listed.
06/12/97	Restricted Work	Multiple	Cuts & Abrasions	Deer jumped in front of ATV and worker lost control.	Not listed.
06/26/97	First Aid	Leg	Bruise	Tire entered ditch causing the ATV to roll.	Not listed.
07/13/97	First Aid	Leg	Bruise	Tire hit hidden tree causing the ATV to roll.	Not listed.
07/18/97	Medical Treatment	Arm	Cut	ATV hit barbwire fence.	Not listed.
07/18/97	First Aid	Leg	Bruise	ATV following too closely.	Not listed.
07/30/97	First Aid	Neck	Strain	ATV hit wire.	Not listed.
08/20/97	Restricted Work	Knee	Strain	ATV tire entered ditch causing the machine to roll.	Not listed.
08/29/97	First Aid	Arm	Bruise	Boat hit ATV while towing.	Not listed.
09/05/97	Restricted Work	Abdomen	Bruise	Improper towing of ATV caused it to roll over.	Not listed.
10/04/97	First Aid	Hands	Punctures	ATV roll over along fence line.	Not listed.
10/10/97	Restricted Work	Multiple	Bruises	ATV hit wire and rolled.	Not listed.
10/12/97	Restricted Work	Ankle	Sprain	ATV rolled when turned too sharply.	Not listed.
10/14/97	First Aid	Back	Pain	ATV sank while crossing creek.	Not listed.
10/15/97	Restricted Work	Knee	Strain	ATV roll over on hill.	Not listed.
10/22/97	Restricted Work	Knee	Sprain	ATV roll over - unsafe loading.	Not listed.
10/30/97	Restricted Work	Back	Strain	Repetitive bouncing on ATV.	Not listed.
11/01/97	Restricted Work	Ribs	Fracture	Tire came off ATV causing it to roll.	Not listed.
11/03/97	Restricted Work	Eye	Abrasion	Hit by branch while driving ATV.	Not listed.
11/08/97	Restricted Work	Back	Strain	ATV hit washout and came to sudden stop.	Not listed.
11/22/97	Restricted Work	Pelvis	Fracture	Driving ATV in wrong gear and rolled the machine.	Not listed.
12/07/97	Restricted Work	Ankle	Sprain	ATV roll over on hill.	Not listed.
12/11/97	First Aid	Eye	Abrasion	Hit by branch while driving ATV.	Not listed.
01/03/98	Restricted Work	Multiple	Bruise & Cut	ATV roll over - unsafe driving.	Not listed.
01/04/98	Restricted Work	Ankle	Sprain	Inattention on ATV caused it to enter a ditch and roll.	Not listed.
01/21/98	First Aid	Leg	Cut	ATV hit rut and rolled.	Not listed.
01/31/98	First Aid	Foot	Bruise	Rolled ATV when dog ran in front and tried to stop suddenly.	Not listed.
02/07/98	First Aid	Ankle	Sprain	ATV hit by closing gate.	Not listed.
02/10/98	First Aid	Shoulder	Bruise	ATV rolled over due to inattention to terrain.	Not listed.
03/01/98	First Aid	Eye	Foreign Object	Foreign body entered eye while driving ATV.	Not listed.
03/07/98	First Aid	Back	Pain	ATV roll over on wet road.	Not listed.
04/19/98	Lost Time	Ankle	Fracture	ATV rolled when battery fell off and went under tire.	Not listed.
04/29/98	First Aid	Bruise	Shoulder	ATV roll over.	Not listed.
05/05/98	First Aid	Finger	Sprain	Jammed finger on ATV.	Not listed.
05/21/98	Restricted Work	Multiple	Bruises	ATV went into ravine and rolled.	Not listed.
05/24/98	First Aid	Ear	Foreign Object	Moth flew in ear while driving ATV.	Not listed.
6/1/1998	First Aid	Shoulder	Scrapes	ATV side swiped fence.	Not listed.

Attachment #6 (cont.)

06/10/98	Restricted Work	Knee	Sprain	ATV roll over on hill.	Not listed.
06/21/98	Restricted Work	Wrist	Fracture	ATV hit bump and driver fell off.	Not listed.
06/23/98	Restricted Work	Multiple	Cuts & Bruises	ATV roll over - lost control.	Not listed.
06/23/98	Restricted Work	Back	Sprain	ATV roll over going up hill.	Not listed.
07/13/98	First Aid	Multiple	Bruises	ATV fell off ramps while loading into back of truck.	Not listed.
08/05/98	Restricted Work	Foot	Bruise	ATV tire hit stump and rolled.	Not listed.
08/07/98	Restricted Work	Shoulder	Sprain	ATV hit hole and ran into fence.	Not listed.
08/20/98	First Aid	Foot	Bruise	ATV caught wire which pulled foot.	Not listed.
09/04/98	Lost Time	Wrist	Fracture	Lost control of ATV and hit fence.	Not listed.
09/05/98	Restricted Work	Knee	Sprain	ATV left edge of hill and rolled.	Not listed.
09/06/98	Restricted Work	Collarbone	Fracture	Lost control of ATV and rolled.	Not listed.
09/08/98	Lost Time	Neck & Shoulder	Strain	ATV rolled while being towed.	Not listed.
09/26/98	Restricted Work	Knee	Sprain	ATV hit rut and rolled.	Not listed.
10/10/98	Lost Time	Wrist	Fracture	ATV rolled over going up hill.	Not listed.
10/14/98	First Aid	Wrist	Sprain	ATV hit hidden hazard.	Not listed.
10/29/98	First Aid	Wrist	Sprain	ATV left in reverse jarred wrist.	Not listed.
11/18/98	First Aid	Lip	Cut	ATV hit wood and face hit headlight.	Not listed.
12/07/98	Restricted Work	Back	Strain	Riding ATV over rough terrain.	Not listed.
12/31/98	First Aid	Eye	Abrasion	ATV hit stick which flew up hitting worker in face.	Not listed.
03/01/99	First Aid	Lip	Cut	Driving ATV & hit in branch by mouth causing a small cut.	Not listed.
03/08/99	Restricted Work	Neck	Strain	Looked behind him while driving ATV, hit a bump and felt pain in neck.	Not listed.
06/27/99	First Aid	Multiple	Puncture	Ran into cactus while driving.	Not listed.
10/22/99	First Aid	Leg	Bruise	ATV roll over on hillside.	Not listed.
10/31/99	Restricted Work	Knee	Sprain	Worker helping cattle rancher put hay bales into cattle pen. One hay bale became lodged in the gate. Worker decided to try to use ATV to push hay bales through gate. The front tires of the ATV ran up onto the hay bale and it started to roll. The worker jumped off the machine and injured his knee.	Worker instructed to never try to "push" anything with ATVs. They are not designed for this purpose.
06/15/00	First Aid	Back	Strain	Worker reported back pain from riding ATV through rough terrain. Had pre-existing back problems.	Worker instructed on pre-driving warm up exercises and isntructed to go around obstacles rather than over themt or reduce rough ride.
10/06/00	Restricted Work	Back	Bruises	Worker driving ATV up a hill and applied brakes which caused machine to stop suddenly and roll over. Worker attempted to jump off machine but was caught by handlebars.	Worker given remedial training on use of ATVs on hillsides and to always inspect the hill on foot before attempting to climb the hill.
06/01/01	Medical Treatment	Knee	Strain	Worker was troubleshooting on an ATV when he hit a group of ruts in road and lost control of the unit. The quad started to turn over so he put his leg down and tried to stop it. This action caused an injury to his knee.	Discussed driving very slowly through rutted terrain and using extreme caution. In the event that the machine starts to tip the legs should never be used to right the machine. Reviewed JSA with worker.
05/29/02	First Aid	Eye	Foreign Object	Worker driving ATV through wheat field when a small piece of wheat flew up under safety glasses and entered eye. Eye was flushed and foreign object came out.	All ATV riders issues goggles to wear.
06/15/02	First Aid	Wrist	Sprain	Worker looked over shoulder while driving and hit drainage ditch with front tires. ATV came to sudden stop jarring his wrist.	Worker reminded that you must always focus your attention forward at all times while in motion.
06/28/02	First Aid	Cheek	Cut	Driving ATV through high grass when tie rod struck a stump covered by the grass. Worker was standing up at the time lokoing for a n access point and was jolted forward by the impact striking his face on the fence catcher.	All fence catchers covered with foam padding and any addiotnal sharp edges will be padded. Driver given remedial training and instructed to walk fields covered in high grass first to determine if there are any hidden objects.

Attachment #7

Mr. Jim Brenner
Rocket Pack LLC
16 Raymond Lane
Hampton, NH 03842

November 26, 2002

RE: Veritas ATV Safety Limiter Study Audit
Summary Report of Findings

Mr. Brenner,

Enclosed is a summary Report of Findings of my analysis of the Veritas Study. In summary, I find the results of the study a plausible result given the engineering and management controls and the delivery of focused training.

As a reported study, I find the document somewhat lacking in depth of detail as to the accident investigation and reconstruction methodology and somewhat vague as to the enforcement levels of management in terms of employee consequence post incident.

In sum, I find the degree of injury reduction plausible given the stated implementation of a Safety Management System inclusive of Policy, Procedure and Engineering Controls.

If you have any questions concerning the report, its conclusions or the methodology of my analysis approach please contact me directly.

Sincerely,
Safety Resources, Inc.
Robert R. Baldwin
President

10300 Town Park, Houston, Texas USA 77072 Telephone 832/351-8300 Facsimile 832/351-8795
www.veritasdgc.com

[1]Report of Findings

Abstract

Safety Resources was retained to conduct a blind analysis of the ***Veritas Safety Limiter Study Audit Report.*** The defined scope of the analysis was to objectively assess the credibility of the Report relative to the stated accomplishment of accident/incident reduction over a period of years from 1997 to 2002.

The findings of the analysis conclude that the Report and the stated accomplishment are credible given the measures taken to control the root causation of the accidents and injuries. It is further concluded that while the outcomes are technically plausible within the context of a managed safety approach, the accomplishment methodology is not well explained and lacks a depth of detail.

A final conclusion of this analysis is that the utilization of the "speed limiter" device was an important component of what appears to be a rather expansive and complex safety management system.

In summary, the magnitude of the accident reduction for injuries associated with ATV use is believed to be true, sustainable and transferable to other hazard exposure circumstances.

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Summary Observations from the Veritas DGC Report

The Veritas Study states that: "In 1996, an ATV Fatality prompted Veritas to begin to track and study accidents". No other information is offered describing the Veritas expertise and methodology for accomplishing accident tracking and investigation or the history of ATV specific data for the years prior to the study.

The report goes on to state that in the second half of 1997 specific safety procedures for ATV operators were implemented. These procedures included a ***previous vehicle*** operations screening system and established an "Approved Driver" status as a condition for ATV operation within Veritas. Other procedures included ATV mechanical inspections, ATV operator training (ASI rider training) and a requirement for the use of a compliment of Personal Protection Equipment (*helmet, boots, goggles, and clothing which covered most all exposed skin surfaces*).

In the second half of 1998 an engineering control was initiated which limited the top end speed for ATVs to a maximum of 15 mph (22 feet per second). The speed limiting device has been maintained since its inception but has been refined to enhance tamper resistance.

In 2001 the speed limiting control was modified to allow for its installation on a wider variety of ATV makes and models and an RF capability allowed for adjustments of speed settings.

A second engineering control was also implemented in 2001 as a modification to the ATV. The device is referred to as a "fence grabber" and is designed to prevent injury to the ATV Operator in the event of collision with a wire fence.

The report represents that the number of ATV related injuries decrease from 39 injuries reported 1997 to 33 injuries reported1998. In the subsequent years injury reports were as follows:

1999 5 reported injuries;

2000 2 reported injuries;

2001 1 reported injury.

NOTE: *In the year 2002, 3 injuries were reported but due to partial year reporting, this data was not utilized in trend analysis.*

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Analysis Methodology

In initiating the analysis effort it was deemed important to credibility measures to be able to establish a comparison of the accident and injury rates of Veritas to those of other ATV users. For this, the ATV injury rates contained within the Annual Reports of the United States Consumer Product Safety Commission (CPSC) were utilized as a source of data. This source of accident frequency information was not generated by the ATV Manufacturing Industry. In addition, the CPSC Reports contained information relative to actual recorded injury from hospital emergency room records.

Further, the CPSC also commissions a direct ATV user survey to determine user characteristics, attributes, equipment modifications etc. Since the generation of direct user survey information was conducted by independent third parties and not the CPSC itself, this was considered important to establishing what "non-manufacturer" modifications were trending in the broad base of users.

A complexity presented by the utilization of CPSC data was formulating some method to directly compare Veritas injury frequency data with national statistics. It must also be noted that while the CPSC information does document a significant amount of non-recreational use, when the body of statistics is examined it must be viewed in light of a majority of recreational users.

The CPSC records injury rate data in terms of injury frequency per ATV considering a mixed use for a shorter duration per year. Veritas uses relatively few ATV's but uses them for extended periods within a given year. Therefore, some conversion constant was required in order to provide for direct comparison. The methodology used was to develop a definition of an ATV in terms of hours of use. CPSC reports in its' PART I of the Report on 1997 ATV Injury Survey* that the national annual usage estimate for an ATV to be 252.3 hours. This use factor of 252 was then utilized as defining typical annualized use (or hazard exposure) hours for one ATV. The equivalency was made as follows:

VTS Safety Study (ATVs), USA – Calendar Year (page 14)

Year	Annual Hours of Use	Actual Number of ATVs in use at Veritas	CPSC est. annualized use For ONE ATV	Veritas Equivalency (number of ATVs)
1997	**283,253**	**60**	**252**	1124
1998	**244,511**	**60**	**252**	970
1999	**162,634**	**60**	**252**	645
2000	**221,454**	**60**	**252**	878
2001	**215,705**	**60**	**252**	855
2002	Data not used			

Veritas reports ATV use every day of the year except Christmas day. Which again supports that one Veritas ATV cannot be directly compared with one "typical user" given the shear intensity of use. When a ATV is defined by exposure hours a comparison of injury rate is assumed for this analysis to be a direct correlation.

As the table indicates, in any given year, the use intensity of one "Veritas ATV" is equivalent to the same use intensity as 10 to 18 ATV's in other conditions.

Using this equivalency formula the following comparison table was constructed:

Calendar Year	Veritas ATV Equivalencies	Veritas Total Documented Injuries	Veritas Injury Rate per ATV	CPSC Reported injury rate per ATV	**Total Veritas injuries estimated using CPSC frequency data**
1997	1124	39	.0347	.0171	19
1998	970	33	.0340	.0227	22
1999	645	5	.0076	.0245	16
2000	878	2	.0023	.0257	22
2001	855	1	.0012	.0261	22

NOTE: CPSC Injury rate for bicycles is .0088 (expected injury per bicycle)

Data from Part II of the CPSC Injury offers the following information

Page 51 of the survey states the primary initiating events of ATV injury as follows:

Hit Obstacle 36% primary causative action leading to injury

Driver Actions 25% primary causative action leading to injury

Miscellaneous 39% primary causative action leading to injury
(includes driver distraction, lost wheel traction, engine stall, etc.)

49 % of injury accidents involve vehicle roll-over

The CPSC Report also indicates the following as two significant risk factors contributing to injury during ATV use:

- Lack of operator training
- No use of Personal Protective Equipment.

The CPSC Reports were utilized as a data basis for examining the Veritas reported injury numbers. Additionally, the summaries of risk factors were assumed as a "point of beginning" that one would assume would be incorporated into any formal safety management program aimed at controlling accident/injury frequency as a consequence of ATV use.

Analysis

Incidents which result in a traumatic death capture attention and cause actions/reactions. This was apparently the circumstance with Veritas in 1996. The fatality event captured management focus therefore the circumstances of accidents and injuries related to the operation of ATVs were recorded and studied.

The report contained no information as to the methodology of the study.

Veritas reports that injury occurrence dropped from 39 incidents 1997 to 33 incidents in 1998. It may be assumed one aspect of this reduction in the number of injuries resulted from increased Safety Awareness on the part of ATV users and from improvements in operator selection and training. There was no empirical data presented from Veritas Human Resources records indicating whether or not the skill level of existing employees had been improved or whether new employees were hired and trained under the focused procedures to perform tasks which required ATV use.

What is reported is that Veritas instituted a systematic program of assessing operator driving behaviors and core competencies, expanding these core competencies through equipment specific operator training these and, assuring the mechanical reliability of equipment by means of an inspection program. This program is directly parallel in structure to that required for Commercial Drivers under the Federal Motor Carrier Safety Regulations (FMCSR) of the U. S. Department of Transportation.

The key elements as compared with the FMCSR are as follows:

Veritas Operator Safety Program	FMCSR
General Provisions	
• Driver responsible for daily vehicle inspection	PART 391.11,13,15
• Vehicle maintenance required	Part 396
• Operator reports deficiencies	Part 396
Approved Driver Requirements	
• Valid License	Part 391
• No Speeding or DUI Violations	Part 391.25,23,25
• Defensive Driving Training	Part 383
• Road Skills Test	Part 391.33
• Pre-Operation Training	

Daily Assignment	
• Mechanical Inspections	Part 396
• Use of Personal Protective Equipment	OSHA 29 CFR 1910 and 1926.95-.102 inclusive

It is plausible that given no previous reported focus on operator safety training that the implementation of such a program alone would result in some injury reductions.

This first programming implementation step examined previous behaviors (propensity for "at risk" behaviors such as drunk driving and excessive speed) and relates these behaviors to the hazard tasks of operating an ATV. In doing so, Veritas appears to have begun a process of creating a more clearly defined "safety expectation" within this work group.

Having devised a method for limiting the ATV Operator employee work group to those with "Approved Status" that is employees with a history of safety minded vehicle operations behavior, Veritas proceeded to build on this core behavior by implementing an intensive and vehicle specific operator training program. This training expanded upon the core competencies of the work group. Veritas alludes to this type of managerial commitment in its summary HSE Policy statement:

* Ensure that employees are competent to conduct their specific tasks...

The sustainability of this "safety mind set" and the retention of and adherence to safe ATV Operating procedures appears to have been maintained in "field" operations.

It is believed that Veritas established both a ***"Group-Level Model of Safety Climate"*** and a ***"Leadership-Based Intervention Model"*** and that these two accomplishments were contributing factors in the dramatic decline in injury frequency.

Approximately 18 months after implementation of two forms of behavior based safety control an engineering control was introduced. This control was a mechanical system installed into the ATVs themselves which limited

the top speed that an ATV could reach in field operations. The report refers to this as an "electronic speed limiter".

The Veritas report describes this device as being fully integrated into the operations control mechanisms of the ATV and that the operating speed limit was set to 15 mph. The devices' full integration into the ATV itself establishes a constant for the operating parameter of the vehicle. Due to the tamper resistance of the device, the vehicle was simply limited as to how fast it would go at full throttle.

There is little doubt that the limitation of speed of vehicle operation; particularly in terrain where the travel surface is unpredictable and often where the tire/ground contact surface is not visible (due to grass, shrubs etc.) offers a reduction of risk of ATV accident.

Conclusions

The intent of this analysis was to determine whether or not (given the information presented) the reduction of the injury frequency rate accomplished at Veritas relative to ATV use was plausible.

The summary conclusion is that the accomplishment of such a drastic reduction is plausible.

Although not specifically stated as such, it seems apparent that Veritas affected a drastic reduction of injuries relative to ATV operation by accomplishing the following:

1. **Created a belief system – A Corporate Value for Individual Safety and communicated a forceful Expectancy of Safety (no injury).**

2. **Developed and implemented a Core Competency Assurance Program;**
   a. **Expanded Core Competencies with equipment specific training'**
   b. **Assured equipment quality through focused maintenance and inspection,**
   c. **Assured sustained operator participation through inspection report requirements.**

3. **Developed and implemented a profound engineering control to further enhance core competencies and assure sustainability**

Experience in the practice of safety management and an understanding of the basic psychology of safety suggests that the injury reduction was the result of all of these safety management controls as a composite risk reduction program.

The accomplishment of a drastic reduction of injuries as a consequence of implementing, enforcing and sustaining a three point managed safety program is credible, sustainable given the comprehensive programming structure and very likely transferable to other operations involving risk of injury.

References

Memorandum: United States Consumer Product Safety Commission, Washington, DC. Robin L. Ingle, Mathematical Statistician – Division of Hazard Analysis, Directorate of Epidemiology, **Annual Report of ATV Deaths and Injuries May 2002.**

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A Group-Level Model of Safety Climate. Dov Zohar, Israel Institute of Technology; Journal of Applied Psychology 2000, Vol. 85, No. 4, 587-596.

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Safety-Related Behavior as a Social Exchange: The Role of Perceived Organizational Support and Leader-Member Exchange. David A. Hofmann and Frederick P. Morgeson, Texas A&M University; Journal of Applied Psychology 1999, Vol. 84, No. 2, 286-296.

U. S. Department of Transportation Federal Highway Administration Parts 382,383,390-397,399,40, **Title 49 of the Code of Federal Regulations**.

ATV Comment 66

March 3, 2003

2003 MAR 12 A 8:

Todd Stevenson
Secretary
U.S. Consumer Product Safety Commission
4330 East-West Highway
Bethesda, MD 20207

RE: Petition to Ban All-Terrain Vehicles for Use by Children Under Age 16: CP-02-4/HP-02-1

Dear Mr. Stevenson:

On behalf of the Lakeshore SAFE KIDS Coalition, I am writing to support a petition, submitted to the U.S. Consumer Product Safety Commission (CPSC) by the Consumer Federation of America (CFA) and other parties, which requests a ban of adult all-terrain vehicles (ATVs) for use by children under the age of 16. As ATVs pose an unreasonable risk of death and injury to children, Lakeshore SAFE KIDS supports most of the provisions of this petition.

As you may know, the Lakeshore SAFE KIDS Coalition is a grassroots project of the National SAFE KIDS Campaign serving Michigan residents who live in Ottawa County. Our local coalition consists of over 40 member organizations all working to prevent unintentional injuries in our community children. Geographically, we are located on the western shoreline of Lake Michigan and are surrounded by significant "green space" as well as sand dunes. Tourism is one of our top 5 industries. Many families visit the area to engage in a variety of recreational activities with an attraction to "experience" the dunes and open space using ATV's. Unfortunately, we continue to witness a growing number of ATV related injuries in both children and adults and are committed to reducing these tragic, often PREVENTABLE, incidences.

The Lakeshore SAFE KIDS Coalition believes that ATVs should not be operated by children ages 15 and under. ATVs are inherently difficult for adults to operate and beyond the developmental capability of children to control. This concept, coupled with the increased number of associated injuries and fatalities, show that there are inherent dangers to children driving adult ATVs. In fact, many of the conclusions found in the CPSC's most recent research (*Consumer Product Safety Commission, Annual Report:2001 All-terrain Vehicle [ATV]-related Deaths and Injuries*, August 2002) clearly demonstrate that there is presently a substantial risk of death and injury. Death and injury that was to be addressed by consent decrees, action plans and consumer education and labeling. Significantly, between 1982 and 2001, 1,714 children under age 16 – including 799 under the age of 12 – were killed in ATV incidents. Furthermore, between 1993 and 2001, the number of ATV-related injuries by children under age 16 increased 94 percent to 34,800. The CPSC data also revealed that while only 14 percent of all ATV riders were children under the age of 16, these children disproportionately suffered approximately 37 percent of all injuries and 38 percent of total fatalities between 1985 and 2001.

In our view, banning ATVs for children would not require removal of the products from the marketplace, but simply preclude ATV manufacturers and retailers from marketing their products to children. Additionally, ATV salespeople would be required to warn potential purchasers about the dangers of the product and ask parents if the ATV was being bought for a child under age 16. These measures, if properly enforced, would pass on vital safety information to parents as well as help to prevent child ATV-related incidents from occurring in the first place by preventing the sale of the vehicle if it is known or reasonably believed that the product will be used by children under 16. Additionally, the Lakeshore SAFE KIDS Coalition supports increased educational efforts, labeling, and instructions – targeted at current owners of ATVs to remind them of the potential dangers of these devices.

If you would like any addition information on the Lakeshore SAFE KIDS Coalition or our affiliation with the National SAFE KIDS Campaign, please don't hesitate to contact me at (616) 399-5184 or email lisa.blystra@spectrum-health.org.

Sincerely,

Lisa Blystra

Lisa Blystra, R.N. Program Manager
Lakshore SAFE KIDS Coalition

ADV COMM 67

March 14, 2003

Office of the Secretary
U.S. Consumer Product Safety Commission
Washington, DC 20207

RE: Petition CP 02-4/HP 02-1, Petition on ATVs

Dear Mr. Secretary:

The undersigned organizations appreciate the opportunity to offer supplementary comments in support of the above referenced petition. Many of our organizations submitted detailed comments prior to the end of the previous comment period (December 17, 2002). We offer the following largely in response to new data released publicly by the Commission on February 4, 2003 in the All-Terrain Vehicle 2001 Injury and Exposure Studies (hereafter the "studies").

The studies provide clear and convincing evidence that the ATV industry's voluntary approach to safety is ineffective in terms of achieving many of its core elements. The findings are particularly significant because they cover most of period during which authority for safety was essentially ceded to industry. They directly rebut the industry's contention that the increase in injuries, which can be traced back to 1993, can be attributed to rising ATV sales and the significant increase in hours of operation. Finally, the studies make the case once again for a proactive and aggressive effort by the Commission to improve safety. The Commission can begin to take such action by approving the petition and initiating the rulemaking process in order to – at a minimum – prohibit the sale of adult-size ATVs for use by children under age 16.

ATV Industry's Voluntary Approach to Safety is Ineffective:

The studies lead us to an unmistakable conclusion – the ATV industry's voluntary approach to safety is failing to reduce injuries or achieve many of its other core objectives. As the Commission is well aware, this voluntary approach has several key elements, including:

- Manufacturers recommend against the sale of adult-size ATVs (defined as ATVs with engine sizes greater than 90 cc) for use by children under 16;
- Heavy reliance on use of warning labels and owner's manual to communicate key safety messages, including warnings against carrying passengers and riding on paved surfaces; and
- Offers of safety training to qualified purchasers of new ATVs.

Injuries and the risk of injury are up across every age group – The estimated number of injuries requiring emergency room treatment increased by 104 percent between 1997 and 2001 to 111,700. Injuries increased substantially across every age group ranging from 23 percent for children age 6 to 12, to 233 percent for children younger than 6, to 502 percent for adults 65 and older. (See Table A2 of studies) In three-quarters of the

age groups (6 out of 8) for which detailed data were provided, the increase in total injuries was greater (generally by a factor of 2 to 4) than increases in the number of drivers or hours driven. This finding is particularly significant for several reasons. First, it challenges the industry's claim that the increase in injuries can be attributed to rising ATV sales and usage in part because the increase in injuries far outstrips increased usage or drivers.

Second, it demonstrates that the problem is not confined to teenage males who may engage in the most risky behavior, but spreads across the riding population. Injuries skyrocketed for the youngest riders (those under age 6) as well as for adults 25 and older. Other evidence in the studies reinforces this conclusion. For example, drivers with 10 or more years of experience suffered the highest percentage increase in injuries (144 percent) of any group – an increase that far outstripped the increases in the number of drivers in this category or driving hours. Injuries per 1,000 drivers with this level of experience increased by 74 percent. If one assumes that this population of ATV riders is most knowledge about how to safely operate these machines, then these findings should cause the Commission to investigate characteristics of these vehicles that may make them unsafe for any rider, regardless of age, physical size or experience.

Children under 16 continue to be injured overwhelmingly by adult-size ATVs -- When evaluating households that own an ATV, CPSC concludes that 87 percent of injuries suffered by children under 16 in 2001 – or more than 22,700 injuries – were caused by ATVs with engines larger than 90 cc. The remaining children in this group were injured while riding smaller machines. This calculation does not capture the entire universe of children injured by larger ATVs because it excludes injured drivers whose families do not own the ATV. Unfortunately, unlike in the 1998 studies, the Commission has not publicly released the total number of all children under age 16 injured while riding ATVs.

Children under 16 continue to suffer much greater numbers of injuries than older drivers on large machines. When evaluated based on injuries per 1,000 drivers, the studies conclude that compared to drivers 16 and older, children under 16 suffer approximately four times as many injuries on ATVs with engine sizes between 91 and 199 cc and twice as many on ATVs with engines 200 cc and larger. These findings are similar to those reported in the studies issued in April 1998.

The studies also demonstrate that the disproportionate impact of ATV injuries on children under 16 became more severe between 1997 and 2001 because their share of the riding and driving populations declined while the number of injuries went up. In 2001, children under 16 accounted for 31 percent of all riders down from 36 percent in 1997 while they made up 17 percent of all drivers down from about 21 percent in 1997. During this same period, the number of injuries suffered by riders under 16 increased by nearly 57 percent while injuries to drivers jumped by an equal amount. For example, the number of drivers between the ages of 12 and 15 declined while they suffered nearly 76 percent more injuries during the study period. In addition, the number of injuries per 1,000 drivers under age 16 increased nearly 40 percent from 7.3 to 10.2.

Few riders receive formal safety training – The industry consistently touts its safety training efforts as a central element of its voluntary approach. Much like warning labels and owner's manuals, the offer of training can be best described as a passive approach to safety. According to the studies, seven percent of ATV riders received formal safety training from a dealer, salesperson or organized training program in 2001. That same year, a minimum of 825,000 new ATVs were sold in the United States. Unlike in 1998, the Commission has failed to make public information about the reasons why training reaches only a fraction of ATV riders. For example, the 1998 studies found that for about one-third of riders, training was offered at inconvenient times and/or locations. This information is critical in terms of evaluating the real world accessibility of training programs.

Passengers continue to ride and be injured by ATVs in very large numbers – While carrying passengers has been a persistent problem, the industry's voluntary approach to safety has failed to reduce the number of passengers or injuries they receive. In fact, the studies conclude that injuries to passengers increased nearly 57 percent from 12,467 to 19,541. The number of passengers also rose during this period from 6.1 to 6.6 million – an increase of 8.1 percent.

Studies Debunk Industry's Contention that Injury Growth Caused by Rising Sales and Usage:

In responding to a comprehensive report on ATV safety issued last year by consumer advocates, conservation groups and doctors, the ATV industry and its surrogates attempted to dismiss its findings by alleging that the dramatic increase in ATV-related injuries (and deaths) is attributable to the growth in ATV sales and usage. Some members of the ATV community also argued that injuries per ATV rider have actually declined because so many more are in use today than in the early 1990s. The studies disprove both theories and reinforce conclusions the Commission has reached in this area when issuing its annual reports on ATV-related deaths and injuries.

By every measure, injuries went up significantly between 1997 and 2001 when evaluated based on 1,000 ATVs, 1,000 drivers/riders and 1 million riding/driving hours. As the Commission is well aware, such measurements control for the growth in number of ATVs as well as increased usage (riding hours). For all drivers, injuries per 1,000 increased by nearly 51 percent while injuries per 1,000 ATVs jumped by more than 46 percent. For drivers under age 16, injuries per 1,000 increased almost 40 percent.

These findings also disprove the theory that injuries per driver declined. If that was the case, injuries per 1,000 drivers would go down rather than up between 1997 and 2001. For all drivers, injuries per 1,000 increased nearly 51 percent from 4.5 to 6.8. For three-quarters (6 of 8) of all age groups for which more detailed information is provided (See Table A2 of studies), injuries per 1,000 drivers increased ranging from a 33 percent jump for drivers under age 6 to a 185 percent increase for drivers 65 and older. The same

holds true based on injuries per 1 million driving hours. The studies clearly conclude that under the industry's voluntary approach, injuries per driver have actually increased.

Studies Fail to Provide Information Necessary to Draw Additional Conclusions:

The evidence presented in the studies clearly demonstrates the ineffectiveness of the voluntary approach. However, the case may be even more convincing because the Commission has failed to release information relating to certain key elements, including awareness of warning labels, which were included in similar studies made public in April 1998. This information, which we understand the Commission did collect, is absolutely critical to any comprehensive assessment of the problem. Knowledge about the presence of and messages conveyed by warning labels is simply one example of critical information not made public as part of the 2001 studies.

The voluntary approach relies largely on labels to communicate important safety information. When one considers that less than 10 percent of ATV riders receive formal safety training, labels (and owner's manuals) may be the only way that the vast majority of riders can learn about the serious risks associated with ATVs. In the 1998 studies, the Commission included information about the extent to which riders (in general and those injured by ATVs) had knowledge about the presence of warning labels on their ATVs and the specific messages on those labels. The Commission found that more than half of injured riders either did not know if their ATV had labels or stated that it did not. If the most recently collected data are similar, then that would only reinforce the conclusion that labels are ineffective.

In addition to being generally concerned about the dramatic reduction in information made publicly available when compared to the 1998 studies, we are especially troubled by the fact that it appears that the ATV industry has this critical information, including raw survey data. The general public should have equal access to information about a serious and persistent threat to public health and safety. The Commission has an obligation to make all findings and analysis, including survey instruments, public in a timely fashion. Failure to do so places the public at a distinct disadvantage as it evaluates the merits of Commission decisions concerning the next steps in responding to the petition.

Commission Can No Longer Delay Action:

These studies add to the mountain of evidence highlighting the ineffectiveness of the ATV industry's voluntary approach to safety. The Commission can no longer deny the problem nor delay initiation of the formal rulemaking process as requested in the petition. The ATV industry has been given amble opportunity to improve safety through voluntary means. The Commission's annual reports and comprehensive studies, on-going medical research and other evidence demonstrate this approach is a failure and must be replaced with a proactive and aggressive safety initiative implemented by the Commission.

We appreciate the opportunity to submit comments, and look forward to working with the Commission to develop and implement a new approach to ATV safety. The Commission can move in that direction today by approving the petition and initiating the rulemaking process.

Sincerely,

Scott Kovarovics
Director
Natural Trails and Waters Coalition
Washington, DC

Don Hoffman
Director
Arizona Wilderness Coalition
Alpine, AZ

Brent Martin
Executive Director
Georgia Forestwatch
Ellijay, GA

TinaMarie Ekker
Policy Director
Wilderness Watch
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Jacob Smith
Center for Native Ecosystems
Paonia, CO

Richard Martin
Coordinator
Forest Coalition of Pennsylvania

Dan Silver
Executive Director
Endangered Habitats League
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Veronica Egan
Interim Executive Director
Great Old Broads for Wilderness
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Sean Smith
Public Lands Director
Bluewater Network
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Center for Biological Diversity
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Nickelsville, VA

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The Clinch Coalition
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Sky Island Alliance
Tucson, AZ

Robert Tomich
Southwest Montana Wildlands Alliance
Boulder, MT

Rachael Bliss
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Coalition for Jobs and the Environment
Abingdon, VA

Douglas Cornett
Executive Director
Northwoods Wilderness Recovery
Marquette, MI

Gary Macfarlane
Friends of the Clearwater
Moscow, ID

Dick Austin
President
Devils' Fork Trail Club
Dungannon, VA

Addie Cranston
Taking Responsibility for
the Earth & Environment
Blacksburg, VA

Beth Davies
Chair
Citizens of Lee
Environmental Action
Network
St. Charles, VA

Jan Wiley
Chair
Patrick Environmental
Awareness Group
Stuart, VA

Terry Weiner
Conservation Coordinator
Desert Protective Council
San Diego, CA

Rosalind McClellan
Rocky Mountain
Recreation Initiative
Nederland, CO

NATURAL TRAILS & WATERS COALITION

TO: Office of the Secretary
FR: Scott Kovarovics
DATE: March 14, 2003

Pages: 7 (including cover)

The attached letter is submitted as comment on Petition CP 02-4/HP 02-1, Petition on ATVs

Montana Office:
Wildlands CPR
P.O. Box 7516
Missoula, MT 59807
(406) 543-9551
(406) 728-9432 (fax)

ntwc@naturaltrails.org

Washington, DC Office:
The Wilderness Society
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Washington, DC 20036
(202) 833-2300
(202) 429-8443 (fax)

The Natural Trails and Waters Coalition includes conservation, recreation, hunting, and other groups working to protect and restore all public lands and waters from the severe damage caused by dirt bikes, jet skis and all other off-road vehicles.

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California Public Interest Research Group (CALPIRG) • Colorado Public Interest Research Group (CoPIRG) • Columbia Consumer Education Council • Consumer Action • Consumers for Auto Reliability and Safety • Democratic Processes Center • Economic Justice Institute • Florida Public Interest Research Group (PIRG) • Maryland Consumer Rights Coalition • Massachusetts Consumer Coalition • Massachusetts Public Interest Research Group (MASSPIRG) • Mercer County Community Action Agency • Michigan Consumer Federation • New York Public Interest Research Group (NYPIRG) • Ohio Public Interest Research Group • Pennsylvania Public Interest Research Group (PennPIRG) • The Consumer Alliance • Virginia Citizens Consumer Council • Washington Public Interest Research Group (WashPIRG) • Wisconsin Public Interest Research Group (WISPIRG)

March 14, 2003

Secretary Todd Stevenson
Office of the Secretary
U.S. Consumer Product Safety Commission
Washington, DC 20207

Dear Secretary Stevenson,

We are writing to supplement our previous letter of December 10, 2002, in support of petition CP-02-4/ HP-02-1, which requests that the U.S. Consumer Product Safety Commission ban the sale of adult-size four wheel all-terrain vehicles ("ATVs") sold for the use of children under sixteen years of age. We are submitting this additional letter to offer comments on CPSC's February 4, 2003, study on ATV injuries: "All- Terrain Vehicle 2001 Injury and Exposure Studies." This study confirms the need for CPSC to rule in favor of petition CP-02-4/ HP-02-1.

Our organizations, which work on product safety issues in numerous states across the country, are very concerned about the number of children killed and injured each year in ATV incidents. Unfortunately, CPSC's recent study reinforces our deep concern about these injuries. The study documents that the number of ATV-related injuries and the risk of injury to riders increased significantly between 1997 and 2001, with children under 16 continuing to suffer disproportionately.

In assessing trends between 1997 and 2001, the Commission's study concludes: (page numbers correspond to the enclosed CPSC report)

- The number of ATV-related injuries requiring emergency room treatment increased by 104 percent to 111,700. (page 2)

- Injuries caused by the largest ATVs, those with engine sizes greater than 400 cc, increased by 567 percent to 24,437. This increase is more than twice as great as the increase in the number of these ATVs in use during this period. (page 19)

- Injuries per 1,000 ATVs jumped 46 percent. Injuries per 1,000 ATVs with engines bigger than 400 cc increased 120 percent. These findings are particularly important because they demonstrate that rising injuries are not solely explained by rising sales. (pages 9 & 19)

- The number of injuries to children under 16 increased nearly 57 percent to 33,071, while their share of the riding population grew by 9 percent. (page 11)

- Children under 16 continued to suffer significantly more injuries than older riders. Children experience nearly twice as many injuries as older riders when analyzed based on a fixed number of riders. (page 14)

The CPSC study concludes that children under 16 continue to be injured by adult-size ATVs. When evaluating households that own an ATV, CPSC finds that 87 percent of injuries suffered by children under 16 in 2001 – or more than 22,700 injuries – were caused by ATVs with engines larger than 90 cc. The remaining children in this group were injured while riding smaller machines. However, this calculation only considers children injured by their own family's ATV and excludes injured drivers whose families do not own the ATV upon which they were injured. (page 22) In addition, the CPSC study found that 1.1 million of the 1.3 million ATV riders under age 16 rode adult-size ATVs in 2001. (page 22) This confirms that children are riding ATVs that are too big, too powerful and inappropriate for their use. Significantly, this statistic also proves that the industry's efforts to ensure that children are not riding adult-size ATVs have failed and further, that CPSC action is necessary to protect children from further ATV injuries.

CPSC's study finds that ATV injuries are increasing for all age groups. The study found that for children younger than six, injuries increased 233 percent, for children ages six to twelve, injuries increased 23 percent, and for people over 65 injuries increased 502 percent. (page 32-- Table A2) In three-quarters of the age groups for which detailed data were provided, the increase in total injuries was greater than increases in the number of drivers or hours driven.

For the first time since 1997, CPSC has analyzed ATV injuries in relation to the characteristics of ATV riders as well as the increase in ATV sales. This study definitively concludes that increases in injuries across virtually every demographic group can not be explained solely by rising sales, more drivers or increased hours of operation.

This study provides CPSC with strong and compelling evidence supporting the conclusion that CPSC should act to reduce the increasing injuries to ATV riders. We urge CPSC to act soon to fight this hidden epidemic by approving petition CP-02-4/ HP-02-1.

Sincerely,

Janette Gayer, Consumer Associate
California Public Interest Research Group (CALPIRG)

Rex Wilmouth, Legislative Director
Colorado Public Interest Research Group (CoPIRG)

Dorothy Garrick, President
Columbia Consumer Education Council

Ken McEldowney, Executive Director
Consumer Action

Rosemary Shahan, President
Consumers for Auto Reliability and Safety

Albert Sterman, Secretary/ Treasurer
Democratic Processes Center

Gerald J. Thain, Vice President
Economic Justice Institute (formerly Center for Public Representation)

Mark Ferrulo, Director
Florida Public Interest Research Group (PIRG)

Cheryl L. Hystad, Executive Director
Maryland Consumer Rights Coalition

Paul Schlaver, Chair
Massachusetts Consumer Coalition

Brad Dakake, Consumer Advocate
Massachusetts Public Interest Research Group (MASSPIRG)

Ron Errett, CEO
Mercer County Community Action Agency

Rick Gamber, Executive Director
Michigan Consumer Federation

Tracy Shelton, Consumer Attorney
New York Public Interest Research Group (NYPIRG)

Amy Simpson, Executive Director
Ohio Public Interest Research Group

Beth McConnell, State Director
Pennsylvania Public Interest Research Group (PennPIRG)

Don Rounds, President
The Consumer Alliance

Irene E. Leech, President
Virginia Citizens Consumer Council

Robert Pregulman, Executive Director
Washington Public Interest Research Group (WashPIRG)

Kerry Schumann, Director
Wisconsin Public Interest Research Group (WISPIRG)

Stevenson, Todd A.

From: Cheryl Hystad [cherylhystad@earthlink.net]
Sent: Friday, March 14, 2003 4:32 PM
To: Stevenson, Todd A.
Subject: Comment Letter to Petition CP-02-04/HP-02-1

Dear Secretary Stevenson,

Please find the attached comment letter from state and local consumer organizations from across the country in regard to petition CP-02-04/ HP-02-1.

Thank you,

Cheryl L. Hystad
Executive Director
Maryland Consumer Rights Coalition, Inc.
512 Murdock Road
Baltimore, Maryland 21212
410-377-4960
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E-mail: cherylhystad@earthlink.net

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March 15, 2003

VIA EMAIL: CPSC-OS@CPSC.GOV

Office of the Secretary
Consumer Product Safety Commission
Washington, DC 20207

Re: Petition CP 02-4/HP 02-1,
Petition on ATV's

To Whom It May Concern:

Florida International University emphasizes research as a major component of its mission. Our university ranks in the top 60 universities in the nation for federal support of social science research. Its most important role, may be the contributions it makes to the well being of South Florida as a community.

As students of Florida International University, it is our duty to research products with safety issues. Regretfully, we have discovered that All-Terrain Vehicle's (ATV's) impose unnecessary danger to consumers, especially children.

The statistics that follow this product are utterly amazing. Many injuries have been reported and the death statistics are what astonishes us. We would like to see the ATV's go through substantial changes when being operated.

We believe that no person under 16 years old should operate an all-terrain vehicle within the Unites States. A person 16 and over should be permitted to operate an ATV, but with certain requirements. The reason for establishing these requirements would be to be able to keep our children safe and everyone that's around them safe.

We would like for you to consider the following:

I. Prohibition against all-terrain vehicle operation by persons under 16 years of age.

We would like to see the following recommendations implemented from the AAP (American Academy of Pediatrics):

- Off-road vehicles are particularly dangerous for children younger than 16 years who may have immature judgment and motor skills. Children who are not licensed to drive a car should not be allowed to operate off-road vehicles.

- Injuries frequently occur to passengers; therefore riding double should not be permitted.

- All riders should wear helmets, eye protection, and protective reflective clothing. Appropriate helmets are those designed for motorcycle (not bicycle) use, and should include safety visors/face shields for eye protection.

- Parents should never permit the street use of off-road vehicles, and nighttime riding should not be allowed.

- Flags, reflectors, and lights should be used to make vehicles more visible.

- Drivers of recreational vehicles should not drive after drinking alcohol. Parents should set an example for their children in this regard.

Furthermore, children under the age of 12 generally possess neither the body size and strength, nor the motor skills and coordination necessary for the safe handling of an ATV. They have not yet developed the perceptual abilities or the judgment required for the safe use of highly powered vehicles. In addition, our research has found that children under 16 were responsible for almost half the ATV-related injuries from 1985 through 1994.

II. Operation on streets, roads and highways should be prohibited

- Drivers should be prohibited from on-road riding because they are inherently more dangerous than passenger cars.

- When crossing a street, road or highway certain rules should be followed.

- ATV's should come to a complete stop before crossing.

- Driver need to make sure all oncoming traffic is completely clear before crossing.

- Crossing of any interstate or limited access highway should be prohibited.

- Operator should yield to the right to all oncoming traffic that would be considered an immediate potential hazard.

III. Requirements of dealers to distribute safety information and give training

Since ATV riding can be a risky sport, all dealers should recommend the following *before* a person rides:

- Teach them how to properly use all the mechanical controls and safety devices of the vehicle.

- Explain and show them the key points of the owner's manual.

- Most importantly, provide them with a safety course before riding.

All dealers need to make sure to inform the consumers of any safety issues affecting all models of ATV's. There are many ATV recalls from different dealers, such as:

- Kawasaki is recalling 732 of the 2003 model year because there is the potential for failure of a weld securing the tie-rod plate to the steering column.

- Yamaha is recalling to inspect 14,000 ATV's because a mounting-bracket weld on the rear hub can come loose, resulting in rear brake failure and possible injury to operators.

- Suzuki is recalling 7,400 because the drive chain could come off the sprockets and lock the rear axle. This could cause the driver to lose control and crash, possibly resulting in injury or death.

IV. The ATV industry self-regulating approach to safety is not working; the responsibility must be on the owner.

Currently, the self-regulating approach relies on the fine prints in ads, warning labels, and recommendations enforced at the discretion of manufacturers.

ATV dealers must warn parents of potential dangers. Parents are ultimately responsible for protecting their children. ATV's are not toys – they are highly dangerous vehicles that injure and kill an alarming number of children every year. We recommend the following:

- It should be illegal to allow children under the age of 16 to operate an adult size ATV. No adult shall authorize or permit an adult size all-terrain vehicle to be operating by any child under 16 years of age. Adults should be legally responsible for anything that might happen to a minor who has been operating an adult size ATV.

- Any adult who owns an ATV should be committing an illegal act by allowing a child under the age of 16 to operate an all-terrain vehicle and must be subject to civil violations and fines up to and including imprisonment.

- Parents that allow a child under the age of 16 to operate an adult size ATV can be sued for the malicious and destructive actions of their children no matter what they are.

- ATV owners can be sued by a person who suffers personal injury or property damages because of the actions of a child under the age of 16 operating the vehicle.

- Homeowners insurance must not cover any ATV related Lawsuit.

- ATV's must be regulated by The Motor Vehicle Act annual licensing that requires the prominent displaying of a visible license plate.

- Since the industry self-regulating approach is not working, there should be a consultation process that explores legislative options and the administration of the American Academy of Pediatrics Act and associated regulations.

- Every state should implement laws to issue formal policies recommending that children under 16 not be allowed to drive ATV's under any circumstance. To operate an ATV a person should be required to have the same or greater skill, judgment and experience as needed for a car including age limits, licensing and training requirements.

- Every state must adopt the legislation developed by the American Academy of Pediatrics concerning the licensing, registration and training requirements for the operation of adult size ATV's.

It seems we can, and must do a better job of providing a safe and secure environment for our children. It is the owner's responsibility to treat the ATV the same as a motor vehicle.

V. Licensing, insurance requirements and registration for an ATV

First of all, we believe that as for the licensing requirements the best thing to do would be the following:

- No one under the age of 16 would be able to get a license issued.

- A person older than 16 years of age must take and pass a program that consist of a knowledge and skills test incorporating requirements designed to develop and teach the knowledge, attitudes, habits and skills necessary.

- A person between the ages of 16 and 21 should take a refreshing program once a year to be able to reinstate their license.

- Only the person that holds a current operator's license issued by the United States or any other state or province of Canada that is approved by the Commissioner is allowed to operate an ATV.

By following these steps any person that is interested in operating an ATV can get the license required by law.

Secondly, we have the insurance requirements. For a person to be able to operate an ATV he or she must at least have coverage of:

1) $50,000 bodily injury per individual
2) $100,000 bodily injury per accident
3) $10,000 property damage protection

To be able to register the ATV insurance is required and it should be notified to the Commissioner if the insurance is cancelled. Having the insurance is very important because this way in case of any accident any damage caused can be covered by the insurance.

Lastly, the registration requirement would be the same as owning a car or a motorcycle. No person may operate an ATV unless the vehicle is registered annually with the Department of

motor vehicles. The license plate must always be displayed on the rear fender of the vehicle. The registration will only be issued to a person that has a license and that has the ATV under liability insurance.

Sincerely,

Cecilia Muniz
Adriana Pineda
Karen Rivera
Antoinette Saintil
Karla Salasar

Florida International University
College of Business Administration
Room 140
University Park
Miami, FL 33199

Email: cmuni001@fiu.edu

Stevenson, Todd A.

From: Cecilia Muniz [cdmuniz@yahoo.com]
Sent: Sunday, March 16, 2003 11:50 PM
To: Stevenson, Todd A.
Subject: Petition CP 02-4/HP 02-1, Petition on ATV's

Attached is a letter regarding the petition on ATV's.

Thank you,

Cecilia Muniz

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Stevenson, Todd A.

From: John and Michele Hafner [mlhafner@insightbb.com]
Sent: Saturday, March 15, 2003 10:18 PM
To: Stevenson, Todd A.
Cc: margo.L.Yoder@osfhealthcare.org; Todd A. Nelson, M.D.
Subject: Fw: Petition CP 02-4/HP 02-1, Petition on ATVs

Sorry, attached is the correct abstract.

John W. Hafner Jr., MD FACEP
Clinical Assistant Professor of Surgery - Emergency Medicine
Director of Research, Emergency Medicine Residency Program
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Attending Physician, Department of Emergency Medicine
OSF Saint Francis Medical Center
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jhafner@pol.net; jhafner@uic.edu

----- Original Message -----
From: John and Michele Hafner
To: cpsc-os@cpsc.gov
Cc: margo.L.Yoder@osfhealthcare.org ; Todd A. Nelson, M.D.
Sent: Saturday, March 15, 2003 9:12 PM
Subject: Petition CP 02-4/HP 02-1, Petition on ATVs

To Whom It May Concern:

I am a board certified emergency physician and an Assistant Clinical Professor of Surgery - Division of Emergency Medicine at the University of Illinois College of Medicine at Peoria. I perform my duties as an attending physician in the Emergency Department of OSF Saint Francis Medical Center/Children's Hospital of Illinois in Peoria Illinois. Our hospital is a level one trauma center as certified by the Illinois Department of Public Health, and serves 18 counties in EMS region 2. We are also a CPSC reporting center.

I am writing this letter to voice my support of Petition CP 02-4/HP 02-1, and to also make you aware of our research and advocacy efforts on the injuries in Central Illinois. We have conducted an in depth review of these injuries that presented to our emergency department from 1994-2002, and found similar trends to those seen nationally. Our results were presented in abstract form at the 2002 Research Forum of the Scientific Assembly of the American College of Emergency Physicians in Seattle, WA, as well as the 2002 Annual Meeting of the Illinois College of Emergency Physicians in Oak Brook, IL. These results are currently being formulated into a manuscript for publication in a pediatric emergency medicine journal. Ina addition to peer review, our results were also presented in the Peoria Journal Star and became the impotence for Illinois Senate Bill 0570 - a bill requiring all children riding any ATV to have a mandatory helmet. Unfortunately, due the strong anti-motorcycle helmet lobby in Illinois (A.B.A.T.E. of Illinois) the bill has been remanded to a senate sub-committee.

Our research and safety legislation attempts highlighted the need for a national effort against these vehicles. I am attaching the abstract of our poster presentation that was published in the Annals of Emergency Medicine, as well as the PowerPoint presentation given during an oral session at the Annual Meeting of the Illinois College of Emergency Physicians. I hope that this information will be helpful for your efforts. Please feel free to contact me should you have any questions or further needs.

Sincerely,

John W. Hafner Jr., MD FACEP

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Director of Research, Emergency Medicine Residency Program
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Pediatric All-Terrain Vehicle Injuries in West-Central Illinois

Todd A. Nelson, MD, MS
John W. Hafner, Jr., MD
University of Illinois College of Medicine
OSF Saint Francis Medical Center

ABSTRACT

Study Objectives: Emergency departments (EDs) in the United States treated 33,000 children in 2000 with an all-terrain vehicle (ATV) related injury, representing 40% of total ATV injuries and 35% of ATV-related fatalities. This study was prepared to evaluate pediatric ATV-related injuries in West-Central Illinois.

Methods: Cases were identified utilizing a local Consumer Product Safety Commission (CPSC) database that records all injury cases presenting to our institution's ED, a Level 1 Trauma Center with an academic, tertiary-care ED. All visits involving an ATV-related injury in children less than 18 years of age from January 1994 through December 2001 were retrospectively reviewed. Student's T-test for unequal variance was used to evaluate differences in injury severity score (ISS). Study results were compared to national CPSC pediatric ATV data.

Results: One hundred eighty seven children (age range 2 to 17 years) from 14 West-Central Illinois counties sustained an ATV-related injury during the study period. One hundred forty six (78%) of the patients were male and 133 (71%) of the cases involved children >12 years of age. Thirteen percent had known helmet use. Seventy-nine (42.2%) of the cases occurred over last two years. Contusions (31.8%), fractures (25%), and lacerations (18.8%) accounted for the majority of injuries. The extremities accounted for 54.1% of the injuries. Derived injury severity scores ranged from 1 to 50 with a mean of 3.1. No statistical difference was seen in ISS for helmet use, gender, or age less than 12 years. Emergency Medicine physicians saw 79% of cases without consultation. However, Trauma Surgery evaluation was required in 14.4% of cases. Of those with fractures 44% required ED Orthopedic Surgery consultation. Twenty percent required hospital admission (6 pediatric ICU admissions), 11% required surgery and one child died in the ED.

Conclusions: The majority of ED pediatric ATV-related injuries in West-Central Illinois involve older males with limited injuries allowing discharge to home. However, significant injuries are not uncommon. Overall, the incidence of ATV-related injuries is increasing and injury patterns correlate well with those reported on a national level. Further injury prevention strategies must be developed if we are to reduce the number of children injured while using ATVs.

Pediatric ATV Injuries in West-Central Illinois

Todd A. Nelson, MD, MS[1,2]
John W. Hafner Jr., MD[1]

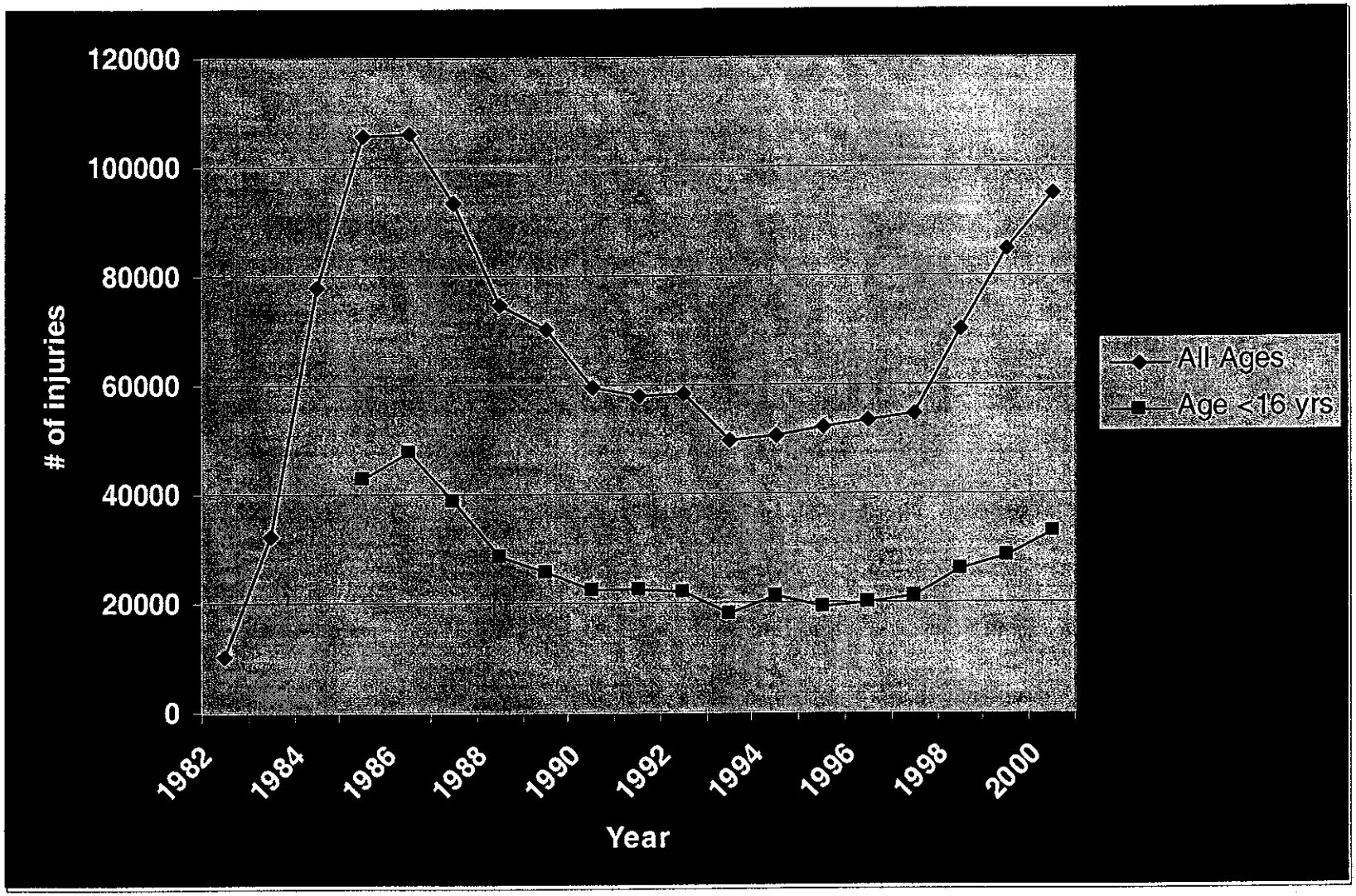
[1]University of Illinois College of Medicine
OSF Saint Francis Medical Center
Peoria, IL

[2]Holy Family Memorial Medical Center
Manitowoc, WI

Introduction

- Large scale marketing of ATVs in 1982 and by the end of 1987 2.5 million ATVs sold
- An all-time high 106,000 ED visits for ATV injuries in 1986 (10,100 in 1982)
- The US Consumer Product Safety Commission (CPSC) made recommendations
  - Halt production of 3 wheeled ATVs
  - Develop nationwide training and safety programs
  - Make ATVs safer
  - Recommend <90cc engines for those <16 and <70cc engines for those <12
- Modest decline in the number of injuries once decree in place. Decree ended 1998. Injuries now back on rise with 95,300 in 2000.

Figure 1. ED Treated ATV-related Injuries



US Consumer Product Safety Commission, 2001

Methods

- Setting
  - OSF Saint Francis Medical Center
    - Level 1 Trauma Center
    - EMS Resource Hospital
    - >65,000 ED visits/year
  - IDPH Trauma Region 2
- Design
  - Cases identified using CPSC database at our institution
  - Retrospective ED and hospital chart review
  - Children <18 years of age
  - Study dates: January 1994 through December 2001
- Descriptive analysis and Student's T-test for unequal variances used to analyze data

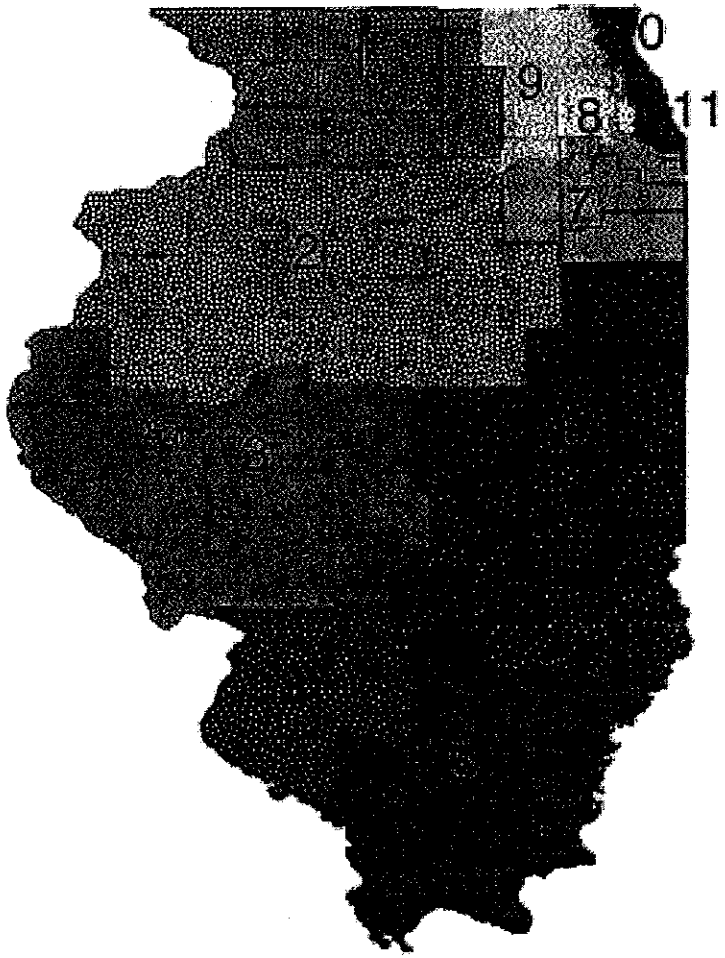
Results

- 187 cases identified
- Age range 2 to 17 years
- Cases from 14 West-Central Illinois counties in Illinois Department of Public Health Trauma Region 2 (Figure)

Figure 2. Location of Injuries

IDPH Trauma Region 2

Counties
Bureau
Cass
Fulton
Knox
La Salle
Lee
Livingston
Marshall
Mason
Mc Lean
Peoria
Stark
Tazewell
Woodford



Results Continued—Injury Location

- Peoria, Tazewell, Woodford, and Marshall Counties had the most injuries (Figure 3).
- Peoria and Tazewell Counties had a greater number of youths with potential exposure (Figure 4).
- Using this, injury rates (injuries per 1000 youths less than 18 yrs of age) were calculated. These showed that Woodford and Marshall Counties had the highest rates (Figure 5).

Figure 3. Number of Cases per County

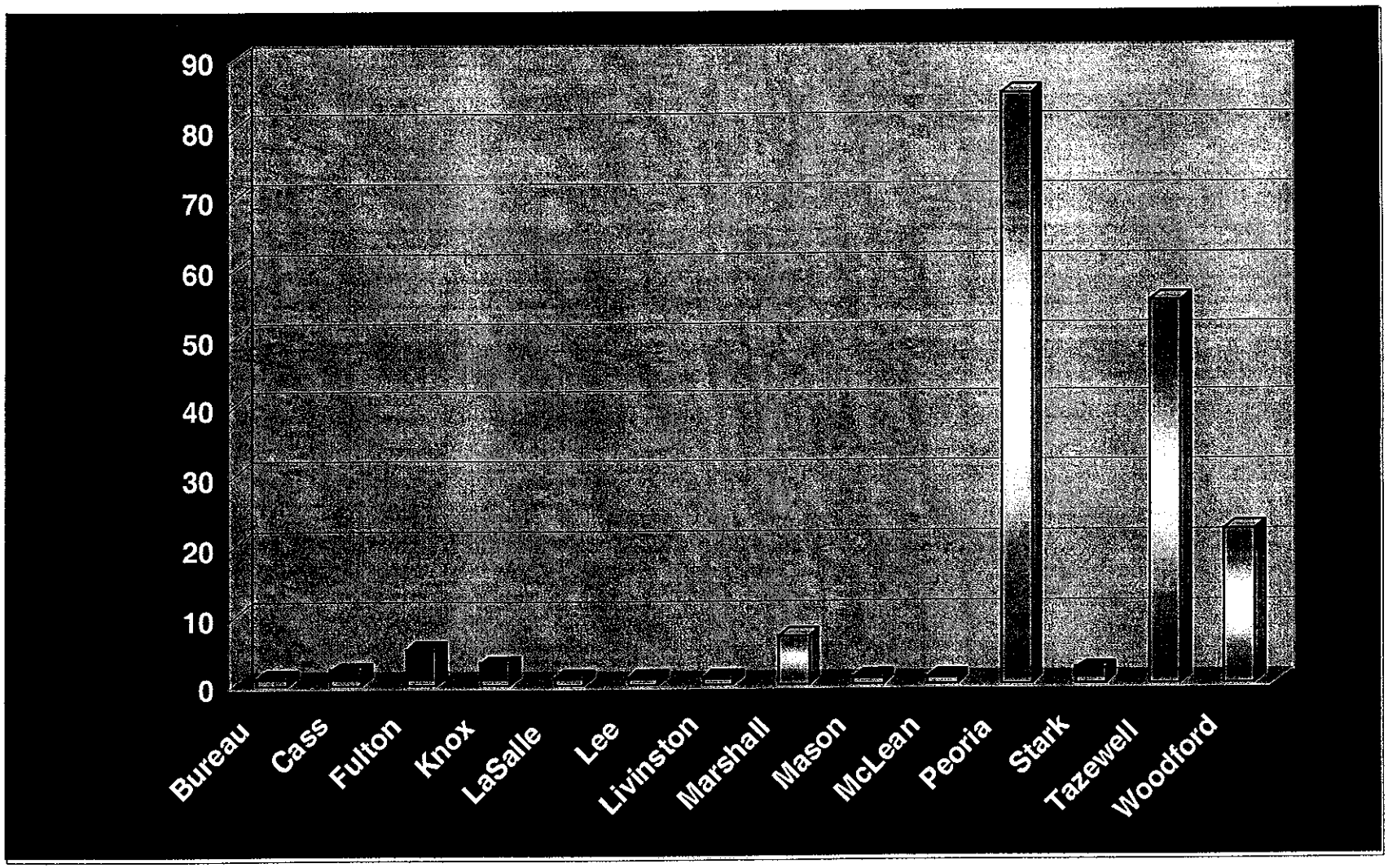


Figure 4. Number of Children <18 yrs

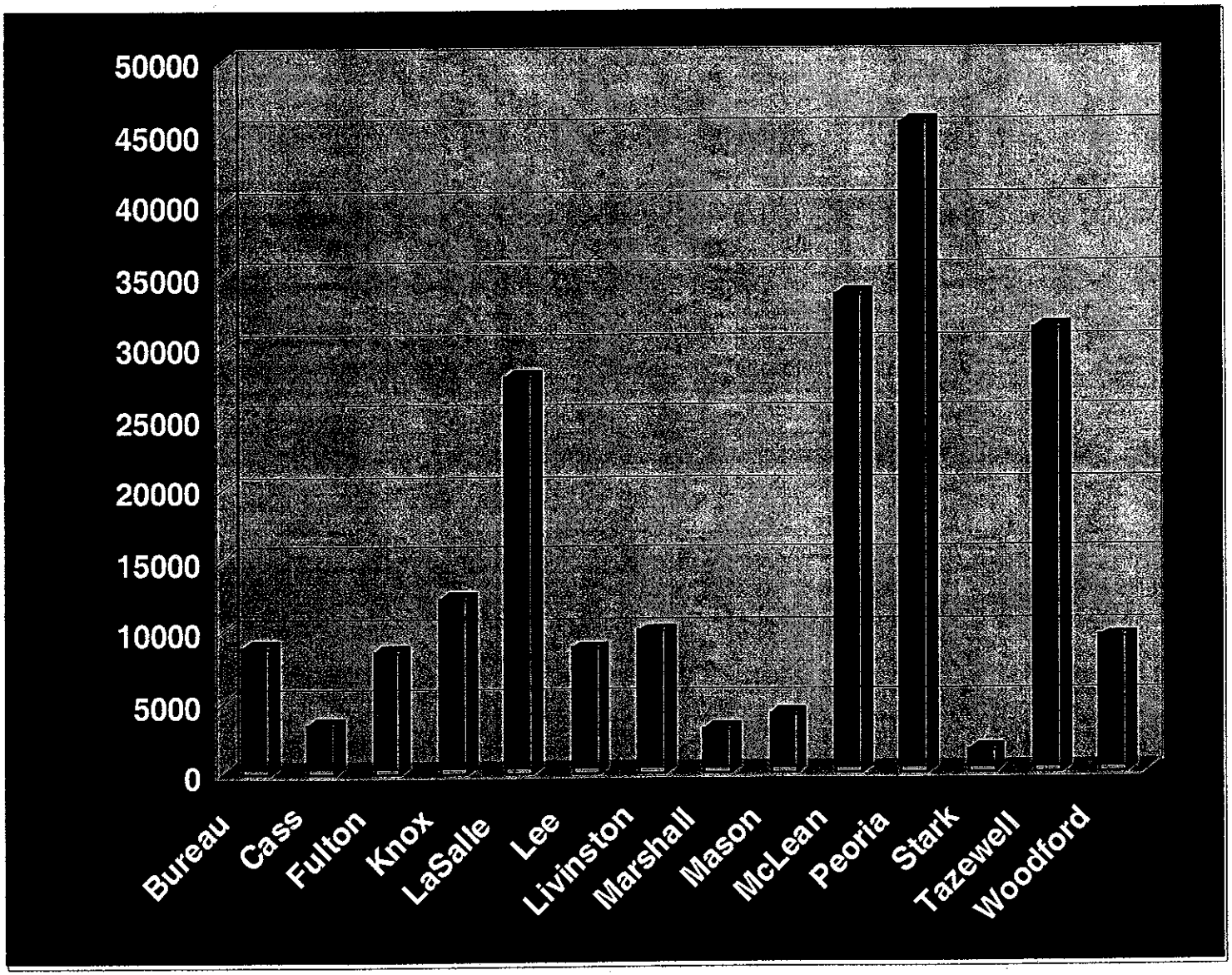
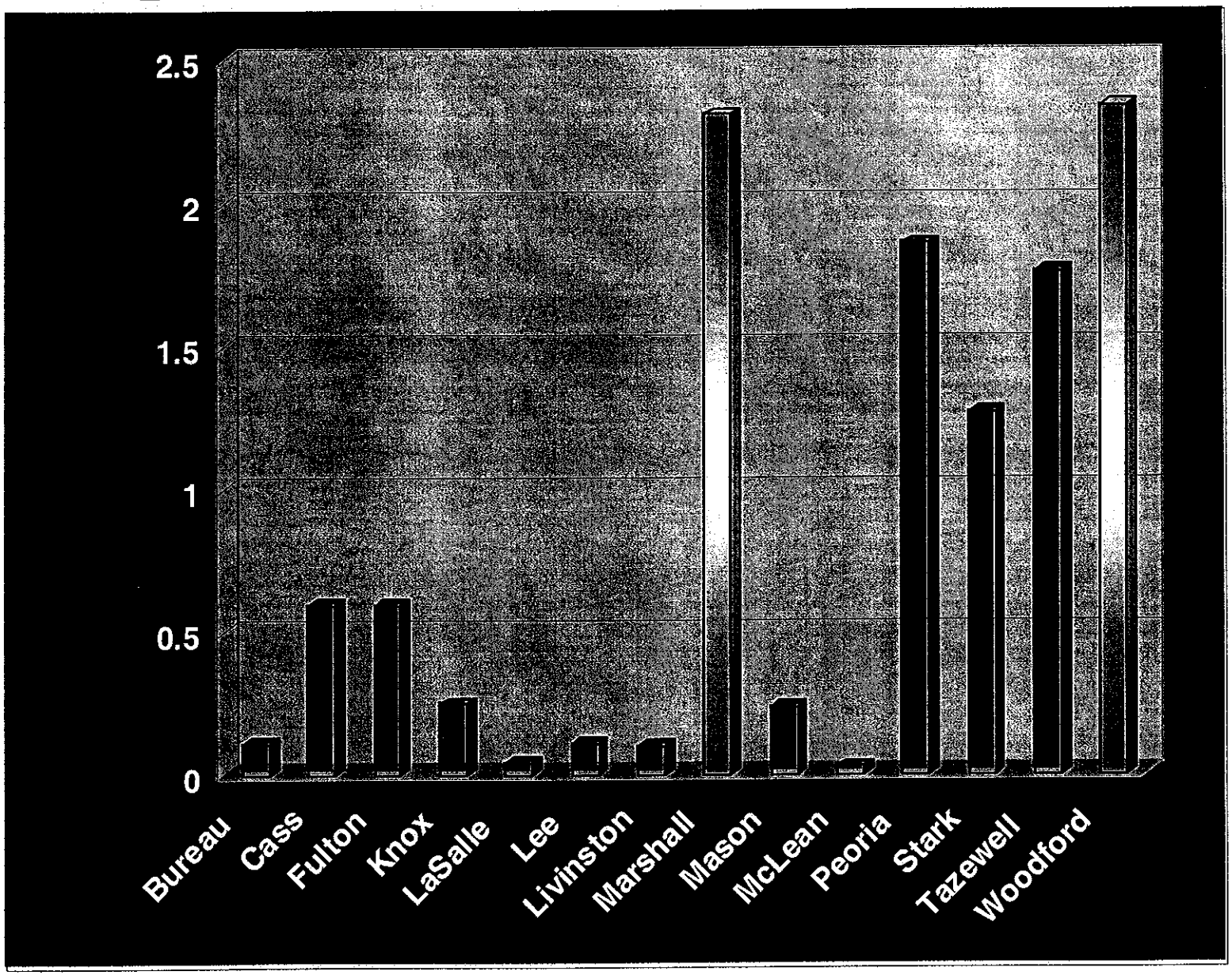


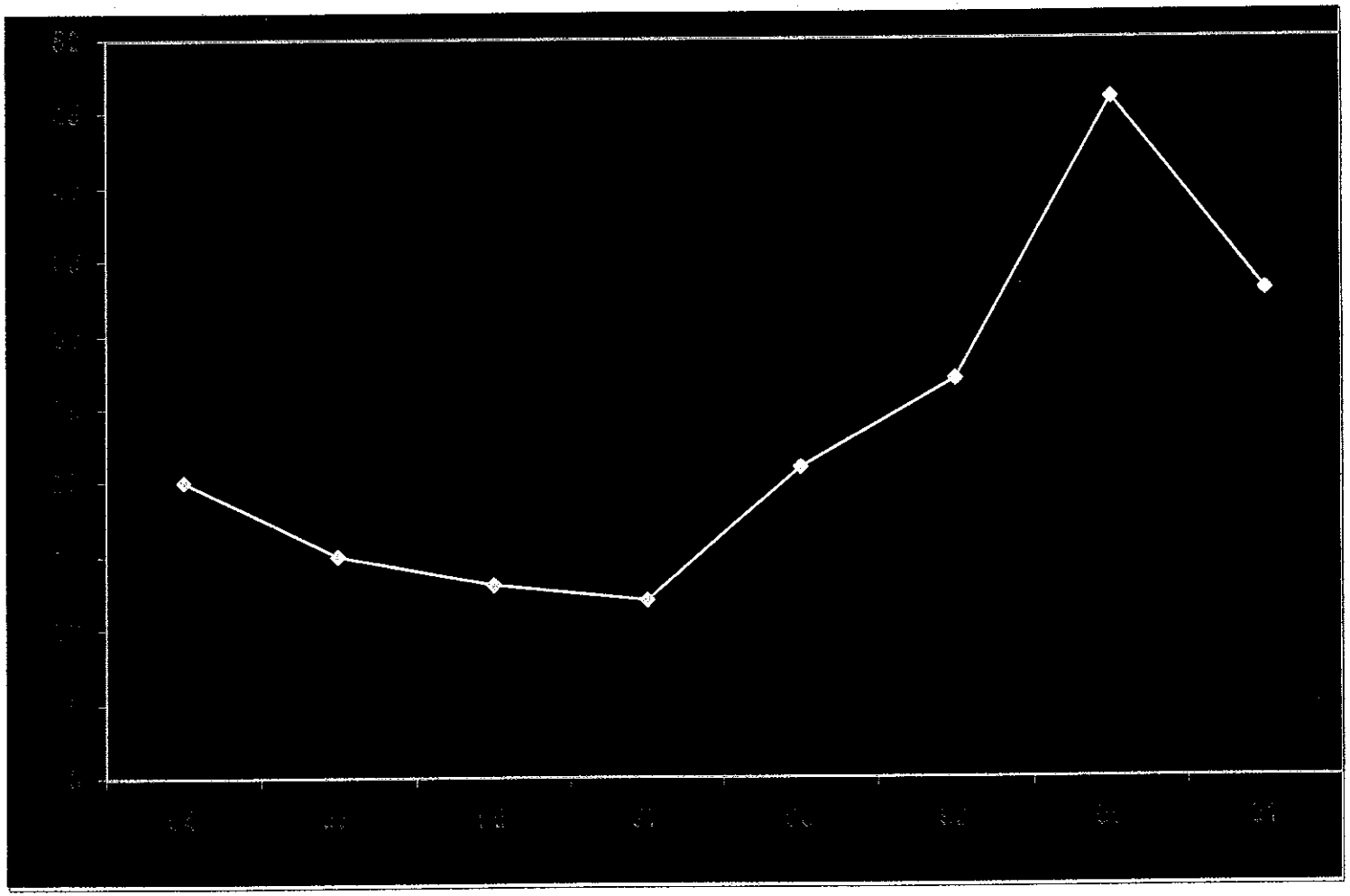
Figure 5. Injuries per 1000 youths



Results Continued—Year of Injury

- Injuries occurred throughout every month and year of the study period.
- 2000 saw the most injuries, while 1997 saw the fewest.
- Overall the trend has been toward a greater number of injuries as seen with national data (Figure 6).

Figure 6. Number of Injuries by Year



Results Continued—Age and Gender

- Males and females from 2 to 17 years of age were injured (mean age 12.5 years; median age 13 years).
- Males accounted for 146 of the injuries (78%).
- 50% of the injuries were to males 13 years of age and older (Figure 7; Table 1).