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Wisconsin
Department of Commerce

P. O. Box 7970
Madison, Wisconsin 53707
(608) 266-1018
TDD #: (608) 264-8777

Jim Doyle, Governor
Mary P. Burke, Secretary

Statement of Secretary Mary Burke on Giant Swing Incident

Elizabeth Mohl's death on July 14, 2007 was a tragic event, and our staff at the Department of Commerce wish to express our most heartfelt condolences to her family and friends.

A thorough investigation of Air Glory's "Giant Swing" ride by the department concluded that the structure or condition of the ride did not contribute to this incident.

I have ordered that the Giant Swing ride be suspended from operation in Wisconsin immediately for the remainder of the year. Further, the department will demand that the owner of the ride allow Commerce to inspect this or any ride they seek to operate in 2008 prior to operation.

Parents and families should have confidence in the safety of amusement rides in Wisconsin. Ensuring that the state's amusement rides are safe and secure is one of the department's most important responsibilities.

To that end, I have directed the department to issue emergency rules designed to minimize the possibility of operator error on rides that suspend riders with harnesses, carabineers, and wires. In addition, I am ordering a review of our program and all regulations governing amusement rides to ensure Wisconsin has the highest possible safety standard for amusement rides in the country.

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Jim Doyle, Governor
Mary P. Burke, Secretary

To: Interested Parties
Fr: Wisconsin Department of Commerce
Re: Giant Swing Ride (Serial Number 2126009) Incident
Dt: July 27, 2007

This memo outlines the Department of Commerce's investigation and inspection findings relating to the Air Glory incident; the Department's measures in response to the incident; and background on Wisconsin's amusement ride safety program administered by the Department.

Summary of Air Glory Incident and Investigation Findings

On Saturday, July 14, 2007, at approximately 5:45 PM, the owner of Air Glory, Gary Ross, informed Commerce Occupational Safety Inspector Shirley Noltemeyer by telephone of an accident involving a rider, Elizabeth Mohl, falling from his Giant Swing ride (Serial Number 2126009). The incident took place the Lifest event held at the Winnebago County Fairgrounds, 500 E. County Trunk Y, Oshkosh, Wisconsin. The Oshkosh Police at the scene informed Noltemeyer that the ride was shut down and would be available for inspection the next day.

On Sunday, July 15, 2007, at approximately 10:00 AM, Noltemeyer commenced an initial inspection of the Giant Swing ride and its safety equipment at that time. Noltemeyer's initial inspection included the harness, carabineer, safety rope, wire cables and metal ring that attached the rider to the ride. While the initial inspection indicated that the harness, carabineer, safety rope, wire cables and metal ring were in good operating condition, Noltemeyer requested that the Oshkosh Police impound the ride to prevent its operation and to preserve the condition of the ride pending a full investigation and inspection. Upon the request, the Oshkosh Police impounded the ride. In addition, the Safety & Buildings Division in the Department of Commerce issued a red-tag that prohibits further operation of the ride until approved by the Department.

On Tuesday, July 17, 2007, Commerce Inspectors Terry Clark, Tim Condon, Scott Amacher and Noltemeyer conducted a detailed inspection of the ride.

After thorough inspections and review, the Commerce inspectors found that that the structure and condition of the ride did not contribute to the incident (*See* attached Accident Investigation and Inspection Memorandum). Specifically, the harness, carabineer, safety rope, wire cables and metal ring that attach the ride to the rider were all in safe operating condition and did not contribute to the incident.

On July 17, Commerce issued a red-tag order and letter prohibiting Air Glory from operating this ride and other similar rides in Wisconsin.

On July 27, 2007, Commerce inspector Terry Clark issued a final Safety Inspection Report and Orders citing Air Glory for 25 code violations related to the ride and ordering Air Glory to correct these 25 code violations. Four of the code violations relate to the operator's failure to maintain records documenting the required assembly, daily, and nondestructive inspections. The

violations cited did not contribute to the incident, as none of the violations relate to the condition of the attachment points between the rider and the ride. (*See* attached Safety Inspection Report and Orders).

The finding that the structure and condition of the ride did not contribute to the incident is consistent with the witness statements and Oshkosh Police incident reports.

Department of Commerce Response

In response to this incident and upon consideration of the subsequent investigation and inspection, Secretary Burke has directed the Division of Safety and Buildings to implement the following measures immediately:

1. Prohibit Air Glory, its owner, and any rides owned or operated by Air Glory or it owner, including the Giant Swing ride, from operating in Wisconsin for the remainder of 2007.
2. Prohibit Air Glory and its owner from operating any ride in Wisconsin for a minimum of 5 years unless and until the Department of Commerce inspects and approves any ride they seek to operate prior to its first use.
3. Enact an emergency rule to minimize the possibility of operator error by setting out explicit requirements for rides that suspend riders with carabineers, harnesses, and wires.
4. Launch a thorough review of the amusement ride safety program, reopen the rules governing amusement rides, solicit input, and evaluate other state's programs to ensure that Wisconsin has the highest possible safety standard for amusement rides.

Commerce's Amusement Ride Safety Program Background

Registration Requirements.

Amusement rides in Wisconsin or entering Wisconsin must be registered with the Department of Commerce prior to operation. Registration requires the submission of owner and ride information as well as a schedule of where and when the ride will be operating within the state. In addition, non-mobile or fixed rides must undergo a plan review and approval prior to operation.

Owner Inspection Requirements.

The owner of amusement rides must conduct and document the following inspections:

- **Inspection at Assembly** – The owner is responsible for a visual inspection of the ride when it is assembled to check for defects and make sure fasteners are properly installed.
- **Daily Inspection and Operational Tests** – Before any rider is allowed to ride each day, operators must inspect and test the ride, including all control devices, speed-limiting devices, brakes, and other safety equipment.
- **Nondestructive Test** – Every 3,000 operating hours or three years – whichever comes first – the owner of rides like the Giant Swing must test the structural integrity of ride using a non-destructive test, such as an X-ray.

In addition, the assembly and disassembly of rides must be done by or under the supervision of an authorized person and rides must be operated by an authorized person of at least 18 years of age.

Sponsor Requirements.

Any person, group or business contracting with a ride owner for the use of an amusement ride must include in its contract a provision that the owner is in compliance with the requirements of Wisconsin law and regulations on amusement rides.

Commerce Inspections.

In addition to the owner inspections, the Department of Commerce conducts regular inspections, usually on a surprise basis, using the itinerary provided during the registration process. Each year, Commerce inspects approximately 60% of the Class 1 and Class 2 rides (carnival type rides). These inspections include reviewing the structure and condition of the ride, including the safety equipment, electrical equipment, fire safety, ingress and egress. The inspections also includes a review of records to ensure that the other three types of inspections have occurred. When violations are found, Commerce inspectors write orders requiring owners to correct the violation. In cases that pose an immediate safety threat, Commerce inspectors red-tag dangerous rides and immediately shut them down.

In June 2006, Secretary Burke strengthened Commerce's inspection program by adopting rules that allow Commerce inspectors to red-tag dangerous facilities, including amusement rides. Once red-tagged, it is illegal to operate the ride in Wisconsin. Prior to the adoption of red-tag authority, Commerce inspectors had to rely on the authority of other officials, such as local law enforcement, carnival management, or ride manufacturers, to shut down a dangerous ride. The red-tag issued against Air Glory's Giant Swing ride is the third amusement ride case in which Commerce inspectors have needed to invoke their red-tag authority.

Commerce officials in the amusement ride program believe that this is the first fatality on an amusement ride in Wisconsin since 1979.

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Jim Doyle, Governor
Mary P. Burke, Secretary

MEMORANDUM

DATE: July 27, 2007

TO: Dave Vriezen, Section Chief

FROM: Shirley Noltemeyer, Occupational Safety Inspector

SUBJECT: Giant Swing (Serial Number 2126009)/Air Glory Accident Investigation and Inspection

This accident investigation memorandum relates to the fatal accident of Elizabeth Mohl, aged 16, involving the Giant Swing ride (Serial Number 2126009), owned and operated by Air Glory, at the Lifest event held at the Winnebago County Fairgrounds, 500 E. County Trunk Y, Oshkosh, Wisconsin on July 14, 2007.

Description of Ride and History
The Giant Swing ride elevates one to three riders into the air, and when one of the riders pulls the release mechanism, the riders drop a short distance and then swing back and forth. The ride consists of a large crane anchored to a trailer with a cable extending down over a ramp. Operators secure the riders to harnesses, which are then attached to a metal ring on the cable. Each harness is attached to a manual locking carabineer (sometimes referred to as a "D-ring") in the back. The ride operator clips the carabineer to a metal ring on the cable suspended from the crane and manually screws the carabineer to its locked position. A secondary safety rope goes through the riders' harnesses and is attached, using manual locking carabineers to the metal ring. The release mechanism (ripcord) is a small clasp that is attached to the metal ring. The riders are attached to a metal block, which hoists them to the top of the ride. A separate cable pulls the riders back toward the crane, and once in position, the operator tells the riders when it is okay to pull the release mechanism. When the rider pulls the release mechanism, the riders drop a short distance before swinging back and forth.

The ride was first registered in Wisconsin in 2003. An inspection was conducted in August 2003 and corrective orders issued. In August 2004, Commerce re-inspected the ride, found that the orders had been complied with, and approved the ride for operation. The ride was registered in 2005. This ride was not registered in 2006, and therefore was not in the State of Wisconsin and not available for or subject to inspection. The ride was registered in 2007. Lifest was its first scheduled event. It was scheduled for an inspection on Tuesday, July 17, 2007, at its second and final event in Twin Lakes.

Incident Investigation
At approximately 5:45 p.m. on Saturday, July 14, 2007, Gary Ross, the owner of Air Glory called me and stated that a customer had fallen from his ride late that afternoon. He said he knew he had to inform us as he figured we would want to send someone up to Oshkosh, where the accident occurred. I told him I would check with my supervisor and call him back. I called Dave Vriezen on his cell phone, but the voicemail snapped on immediately. I then called Randy Baldwin, Bureau Director. Randy said he would check to see who was available. I then called Mr. Ross back to let him know someone would be up to conduct an investigation of the accident on Sunday. Mr. Ross then gave the phone to Sergeant Dennis

Waddington of the Oshkosh Police Department. I asked Sergeant Waddington about the condition of the victim. He told me we were probably looking at a fatality. After again talking with Randy Baldwin, it was decided that I would go up to Oshkosh on Sunday. I then called Gary Ross and Sergeant Waddington to tell them that I would be there at about 10:00 a.m. on Sunday morning. Sergeant Waddington informed me that the ride had been shut down immediately after the accident and would be available for inspection Sunday.

I arrived at the Winnebago County Fairgrounds (Expo Center) on Sunday at about 9:30 a.m. JD Smith of JD Smith Security picked me up on a golf cart and took me to the scene of the accident. When I arrived at the scene, Sergeant Waddington and Detective Dean Artus were there waiting for me. Oshkosh Detective Artus gave me a copy of all the witness statements available at that time. The Oshkosh Police had also told Mr. Ross that I would be there around 10:00 a.m. on Sunday morning. Mr. Ross did not arrive until approximately 11:45 a.m. Mr. Ross stated how sorry he was for everything that had happened.

Mr. Ross laid out the harness that the victim had been wearing. When the victim was removed from the harness, the harness was cut at the shoulders and at the bottom. Mr. Ross had his son, Orion Ross, put a harness on, and we proceeded to the ride so he could show us what had happened. Mr. Ross showed us how the harness is put on the rider and how the rider is connected to the ride with a manual locking carabineer. He then showed us how the safety rope is to be attached. He stated that if the carabineer is locked and if the safety rope is correctly attached, there is no way a person could come unhooked. He also showed how the ripcord is attached. He said it could be possible that when the person pulls the ripcord, the ripcord could conceivably push open the carabineer if the carabineer had not been properly locked. The Oshkosh police had the carabineer in their custody. I inspected the carabineer and determined that it was in good condition and working properly. When in the locked position, the carabineer would not open.

Mr. Ross said his first knowledge of the accident came when his son came over to him and said that someone had fallen and he thought they should call the ambulance. Mr. Ross said he thought his son meant someone who was watching the operation had fallen. Mr. Ross said that after he had harnessed up the victim and another rider, he came off the platform, over to the tarp, which was about 10-15 feet away from the platform, and was proceeding to harness the next riders when his son informed him of the accident.

According to Mr. Ross, on Saturday, July 14, 2007, he and Derek Armelin were working on the platform harnessing in the riders on the giant swing at the time of the accident. Mr. Armelin was working on the right side of the platform, and Mr. Ross was working on the left side. Mr. Ross said that Mr. Armelin was a new employee having worked for Mr. Ross only about two weeks. Mr. Ross also said Mr. Armelin also had a tendency not to lock the carabineer after attaching the rider to the ride. Mr. Ross said he always worked on the left side when working with Mr. Armelin so that he (Mr. Ross) could check the carabineer before attaching the safety rope. Mr. Ross stated if the carabineer was locked, there would be no way it could come loose when a person was attached to it. Mr. Ross also said that if the carabineer was locked and if the safety rope was properly attached it would not be possible for anyone to come loose from the ride. This is consistent with the statements that Mr. Ross provided to the Oshkosh Police and with Commerce's independent investigation.

During my initial inspection on July 15, 2007, I asked to see daily inspection, maintenance and training records. Daily inspection records, which are required, were not available. The

maintenance log, which is required, was available; however, the entries were not done on a daily basis. This log did contain an entry for July 3, 2007 that Mr. Gary Ross believed that Derek Armelin was sufficiently trained to operate the ride. Training records, which typically required by ride manufacturers but not explicitly required by Wisconsin Law, were not available.

I checked with Randy Baldwin, and he said I should issue a red tag on the ride. It was also decided that we would like the Oshkosh Police to impound the ride until we had the opportunity to do a full inspection. A red tag was placed on the ride on Sunday, July 15, 2007, preventing further operation of the ride until approved by the Safety & Buildings Division of the Wisconsin Department of Commerce.

On Tuesday, July 17, 2007, a thorough inspection was done of the ride by Terry Clark, Tim Condon, Scott Amacher and myself.

After our inspections and review, we find that the structure or condition of the ride did not contribute to the accident. The harness, carabineer, safety rope, wire cables and metal ring that attached the victim to the ride were all in safe operating condition and operating as designed. Although a substantial number of violations were found and orders for correction issued as a result of the inspections, the code violations and orders issued do not relate to the condition of the attachment points between the rider and the ride and thus could not have contributed to the incident.

On July 17, 2007, I hand delivered to Mr. Ross a copy of my Safety Inspection Report and Orders (the Red Tag orders) and a letter from Dave Vriezen prohibiting operation Air Glory from operating this ride and other similar rides in Wisconsin. Because the ride is red-tagged, the ride can not operate in Wisconsin until inspected and approved by the Department. The 2007 Registration was revoked, and the registration sticker confiscated.

Conclusion

After a thorough inspection and review, Commerce inspectors find that the structure or condition of the ride did not contribute to the accident. The harness, carabineer, safety rope, wire cables and metal ring that attach the ride to the rider were all in safe operating condition. The code violations and orders issued do not relate to the condition of the attachment points between the ride and the rider. Our finding that the structure and condition of the ride did not contribute to the cause of the accident is consistent with the witness statements and Oshkosh Police incident reports.

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SAFETY INSPECTION REPORT AND ORDERS

Safety and Buildings Division
816 John St.
Waunakee, WI 53597
(608) 849-9862, (608) 235-0566

To Attention Of:	Inspection Date:	Transaction ID:	Reg Object ID:	Deputy Name:
	07/05/2007	1418136	950967	**Shirley Noltemeyer , Safety Insp.**

Customer ID: 960854

699

AIR GLORY INC

811 MARY MEADOWS LANE

ST LOUIS MO 63141

Device Inspected: Giant Swing, Serial No.: 2126009	
Located At (number and Street address): Winnebago County Fairgrounds	
City: Oshkosh	County: Winnebago
Violations Explained To: Gary Ross	Title: Owner
Compliance Date: 08/04/07	Page:

Item	ORDER	REQUIREMENTS	√ Done	X Not Done

1. **Comm 3.13 Stop Work and Stop Use Procedures. (1)** REASONS FOR ISSUANCE. Pursuant to the statutory goals regarding the protection of public safety and health enumerated under chs. 101, 145 and 167, Stats., the division may, without advance written notice, issue an order to immediately cease any construction, installation, operation, or activity or the use of a building, building component, structure or mechanical device for any of the following reasons:

(a) There is reasonable cause to believe that the construction, installation, activity, existing condition or method of operation creates an imminent danger to public safety or health as a result of a violation of a statute or administrative rule administered by the division.
(b) The activity is being performed or conducted by an individual who does not hold the appropriate license, certification or registration as required by statute or administrative rule administered by the division.
(c) The construction, installation, activity or operation has not been approved or been issued the appropriate permit as required by statute or administrative rule administered by the division.

Condition Found: Potential life hazards.

Action Required: A full ride inspection will be conducted with all violations corrected prior to further use. **NOTE: The Red Tag shall not be removed unless authorized by the inspector. Any person or firm operating this system prior to authorized release is subject to additional penalties.**

Note: Inspection date reads July 5, 2007.
The actual inspection date was July 15, 2007.

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SAFETY INSPECTION REPORT AND ORDERS

Safety and Buildings Division
2715 Post Road.
Stevens Point, WI 54481
(715) 345-5342, (715) 571-1605

To Attention Of:	Inspection Date:	Transaction ID:	Reg Object ID:	Deputy Name:
Gary Ross, Owner	07/17/2007	1418139	950967	**Terrence W Clark , Safety Insp.**

Customer ID: 960854

Corrected and amended: July 26, 2007

699

AIR GLORY INC

811 MARY MEADOWS LANE

ST LOUIS MO 63141

Device Inspected: Giant Swing, Serial No.: 2126009	
Located At (number and Street address): 640 W 3rd Street	
City: Oshkosh	County: Winnebago
Violations Explained To: Gary Ross	Title: Owner
Compliance Date: 07/27/07	Page: 5

Item	ORDER	REQUIREMENTS	√ Done	X Not Done

1. **Code Section Violated:** Comm 34.15 Periodic inspections and operational tests. (1) GENERAL. The owner shall arrange for all amusement rides to be subjected to periodic inspections and operational tests as specified in this section. Such inspections and tests shall be documented by written records and the records shall be kept as specified in s. Comm 34.18.
Condition Found: Documentation of wire rope inspections was not available nor provided.
Resolution: Provide documentation or wire rope inspection.

2. **Code Section Violated:** Comm 34.27 **Identification.** (3) PASSENGER-CARRYING DEVICE IDENTIFICATION. Each passenger-carrying device on an amusement ride or attraction shall be identified by a permanent number or manufacturer's decal, at least one inch in height and located in a conspicuous place. Permanent ink markers are not acceptable.
Condition Found: The passenger carrying devices were not properly numbered.
Resolution: Properly number the passenger-carrying devices (harnesses).

3. **Code Section Violated:** Comm 34.04(6) POSTING OF CERTIFICATE. The registration certificate shall be posted on the amusement ride so that the certificate is visible to the public. The certificate shall not be altered or defaced.
Condition Found: The amusement ride was found to be operating with no visible registration sticker.
Resolution: The registration sticker shall be readily visible to the public as issued. It shall not be altered or defaced.

4. **Code Section Violated:** Comm 34.32(1)(a) Comm 16.12 NEC 525.31 **Equipment Grounding.** All equipment requiring grounding shall be grounded by an equipment grounding conductor of a type and size recognized by Section 250.118 and installed in accordance with article 250. The equipment grounding conductor shall be bonded to the system grounded conductor at the service disconnecting means or, in the case of a separately derived system such as a generator, at the generator or first disconnecting means supplied by the generator. The grounded circuit conductor shall be connected to the equipment grounding conductor on the load side of the service disconnecting means or on the load side of a separately derived system disconnecting means.
Condition Found: The generator was found to be improperly grounded.
Resolution: The generator shall be properly grounded.

5. **Code Section Violated:** Comm 34.16(2) TEST PERIOD. (a) *Class 1 and 2.* When required in accordance

with recognized safe practice, nondestructive tests of all class 1 and class 2 amusement rides shall be performed every 3 years or 3,000 hours of operation, whichever comes first, or at testing intervals required by the manufacturer. The time interval shall be based upon the date of the previous test report.
Condition Found: The ride was found to not have had the required NDT testing.
Resolution: Provide documentation of, or perform a non-destructive test, such as but not limited to magnetic particle, x-ray, dye penetrant or ultrasonic, on the frame of the ride.

6. **Code Section Violated:** Comm 34.24(3)(d) (d) Guardrails shall be designed and constructed with a rigid intermediate barrier, or equivalent, capable of withstanding a minimum load of 100 pounds applied downward or horizontally.
Note: These are minimum standards for protecting average size adults. Guardrails should be constructed to discourage small children from climbing or swinging on, or passing through them.
Condition Found: The ride was found to have platform handrails without a midrail.
Resolution: The ride shall have proper midrails installed on the platform.

7. **Code Section Violated:** Comm 34.32(1)(a) Comm 16.12 NEC 525.20 **Wiring Methods.** (H) **Boxes and Fittings**. A box or fitting shall be installed at each connection point, outlet, switchpoint, or junction box.
Condition Found: On the turntable drive motor and electrical box has been broken off, exposing electrical wires.
Resolution: The electrical boxes shall be properly replaced or shall be removed along with the associated wiring.

8. **Code Section Violated:** Comm 34.32(1)(a) Comm 16.12 NEC 525.20(D) Splices. Flexible cords or cables shall be continuous without splice or tap between boxes or fittings.
Condition Found: The main wire emanating from the main electrical control box was found to be spliced.
Resolution: Spliced flexible cords shall be removed and replaced.

9. **Code Section Violated:** Comm 34.32(1)(a) Comm 16.12 NEC 110.27(A) **Live parts guarded against accidental contact.** Except as elsewhere required or permitted by this code live parts of electrical equipment operating at 50 volts or more shall be guarded against accidental contact by approved enclosures.
Condition Found: Inside the main electrical panel a pillow and other non-electrical materials were found stored there.
Resolution: The non-electrical materials shall be removed from the box and access shall be denied to unqualified persons.

10. **Code Section Violated:** Comm 34.32(1)(a) Comm 16.12 NEC 110.12 **Mechanical Execution of Work.** (A) **Unused Openings.** Unused cable or raceway openings in boxes, raceways, auxiliary gutters, cabinets, cutout boxes, meter socket enclosures, equipment cases, or housings shall be effectively closed to afford protection substantially equivalent to the wall of the equipment.
Condition Found: The electrical panel box was found to have open holes in it.
Resolution: The unused openings in the electrical box shall be properly closed.

11. **Code Section Violated:** Comm 34.32(1)(a) Comm 16.12 NEC 400.10 **Pull at Joints and Terminals.** Flexible cords shall be so connected to devices and to fittings that tension will not be transmitted to joints or terminals.
Condition Found: Various wires throughout the ride were found to be pulled from their respective cord grips.
Resolution: The wires shall have the strain relief properly repaired.

12. **Code Section Violated:** Comm 34.32(1)(a) Comm 16.12 NEC 110.27(C) **Warning signs.** Entrances to rooms and other guarded locations that contain exposed live parts shall be marked with conspicuous warning signs forbidding unqualified personnel to enter.
Condition Found: The main electrical panel is lacking a sign forbidding entry.
Resolution: The electrical panels shall have signs placed on them forbidding entry to unqualified personnel.

13. **Code Section Violated:** Comm 34.32 Comm 16.12 **NEC 525.20 Wiring Methods. A. Type.** Where flexible cord or cables are used, they shall be listed for extra-hard usage. Where flexible cords or cables are used and are not subject to physical damage, they shall be permitted to be listed for hard usage. Where used outdoors, flexible cords and cables shall also be listed for wet locations and be sunlight resistant. Extra-hard usage flexible cords and cables shall be permitted for use as permanent wiring on portable amusement rides and attractions where not subject to physical damage.
Condition Found: The ride was found to have construction lighting strings in use.
Resolution: The ride shall have the improper wiring and lights removed.

14. **Code Section Violated:** Comm 34.38 **Maintenance, repair and modification.** (2) CORRECTION OF DEFECTS. (a) Defective, improper, worn or missing parts shall be replaced or repaired.
Condition Found: The main gear box for the hoisting mechanisms is leaking gear lubrication.
Resolution: The gearbox shall be properly repaired to prevent further leakage.

15. **Code Section Violated:** Comm 34.38 **Maintenance, repair and modification.** (2) CORRECTION OF DEFECTS. (f) Wire rope shall be serviceable and free of sharp ends. Wire rope shall be replaced under any of the following conditions:
5. Burning, kinking, knotting, crushing or other damage which changes the structure of the rope occurs.
Condition Found: The main hoisting wire rope is found to be bird caged.
Resolution: The wire rope shall be properly replaced.

16. **Code Section Violated:** Comm 34.38 **Maintenance, repair and modification.** (1)GENERAL. (a) Amusement rides, attractions and structures shall be maintained, repaired and modified in accordance with recognized safe practice.
Condition Found: The emergency stop switch was found to be broken.
Resolution: The emergency stop switch shall be replaced.

17. **Code Section Violated:** Comm 34.31(4) AUTOMATIC RESTART PROHIBITED. All amusement rides with passenger–carrying devices shall be equipped and maintained with devices to prevent automatic restart after power failure, including, but not limited to, magnetic starters, magnetic switches and pneumatic clutches.
Condition Found: The ride was found to be without proper restart devices.
Resolution: The proper restart devices shall be provided.

18. **Code Section Violated: Comm 34.22 Passenger–carrying devices. (1)** GENERAL. All passenger–carrying devices shall be designed, assembled, operated and maintained in accordance with recognized safe practices.
Condition Found: The ride was found to be operating without an anti two block to prevent over retraction of wire ropes.
Resolution: Similar rides in the State of Wisconsin operate with an anti-two block. This ride shall be fitted with a proper anti-two block.

19. **Code Section Violated:** Comm 34.32(1)(a) Comm 16.12 NEC 110.13(a) **Mounting.** Electrical equipment shall be firmly secured to the surface on which it is mounted.

Condition Found: Inside the main electrical panel a transformer was found to be attached by a piece of rope.
Resolution: The transformer does not belong in the electrical panel. The transformer shall be removed and properly relocated if needed.

20. **Code Section Violated: Comm 34.37 Cleanliness. (1)** REFUSE CONTAINERS. Refuse containers shall be provided in and around all amusement rides. Accumulations of trash or refuse shall be removed within 24 hours.
Condition Found: The ride has unused and damaged wire rope hanging from it.
Resolution: The unused and damaged wire rope shall be removed from the ride.

21. **Code Section Violated:** Comm 34.38 **Maintenance, repair and modification.** (2) CORRECTION OF DEFECTS. (a) Defective, improper, worn or missing parts shall be replaced or repaired.
Condition Found: All the sheaves for the wire haul rope show excessive wear and are not properly aligned.
Resolution: The sheaves and their bushings shall be inspected and either repaired or replaced as needed.

22. **Code Section Violated:** Comm 34.38 **Maintenance, repair and modification.** (2) CORRECTION OF DEFECTS. (h) All required safety pins and wedges shall be installed and they shall be secured with "R" keys, lynch pins, diaper pins or other devices in accordance with recognized safe practice.
Condition Found: The axle for the wire rope sheaves is missing a proper cotter key to hold it in place.
Resolution: The cotter key shall be replaced.

23. **Code Section Violated: Comm 34.18 Record keeping. (1)** OWNER RESPONSIBILITY. Records related to amusement ride safety shall be kept and retained by the amusement ride owner and shall be made available to the department upon request.
(2) REQUIRED RECORDS. Records shall be kept of the following:
(a) Inspections at time of assembly as specified in s. Comm 34.15 (2);
(b) Daily inspections and operational tests as specified in s. Comm 34.15 (3);
(c) Nondestructive tests as specified in s. Comm 34.16;
(e) The hours of operation since the last nondestructive test.
Note: The hours of operation should be recorded after each use to maintain a current running total from the last nondestructive test.
(3) ACCURACY OF RECORDS. An authorized person shall sign the records to attest to their accuracy.
(4) RETENTION OF RECORDS. (a) Records for at least the 30 previous days of operation as specified in sub. (2) (a) and (b) and the most recent nondestructive tests as specified in s. Comm 34.16 shall be kept with the amusement ride.
(b) All records shall be kept at least 7 years.
Condition Found: There are no maintenance and inspection records available for review.
Resolution: The records shall be properly kept and available for review.

24. **Code Section Violated: Comm 34.18 Record keeping. (1)** OWNER RESPONSIBILITY. Records related to amusement ride safety shall be kept and retained by the amusement ride owner and shall be made available to the department upon request.
(2) REQUIRED RECORDS. Records shall be kept of the following:
(b) Daily inspections and operational tests as specified in s. Comm 34.15 (3);
Condition Found: There are no inspection records for the harnesses available for review.
Resolution: The records shall be properly kept and available for review.

25. **Code Section Violated: Comm 34.22 Passenger–carrying devices. (1)** GENERAL. All passenger–carrying devices shall be designed, assembled, operated and maintained in accordance with recognized safe practices.
Condition Found: This ride was operated using a single carabiner to connect each rider's harness to the ride.
Resolution: Similar rides operating in Wisconsin utilize 2 carabiners to attach harnesses to the ride. This ride's harnesses shall be attached to the ride with a minimum of 2 carabiners.