

Walkaround	12/05/06	12:05	Exit	02/02/07	15:56
			Case Closed		

Penalty Reduction Factors					
Size	0	Good Faith	0	History	10

Followup Inspection?	Y	Reason	Abatement Verification
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Coverage Information/Additional Comments
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**SAFETY NARRATIVE**

**TYPE OF INSPECTION:** Fatality

**SAFETY AND HEALTH PROGRAM:** Reviewed on 12/8 & 12/11/06 for accident requirements.

**OPENING CONFERENCE NOTES:**

An abbreviated opening conference was accomplished with Donovan Chad Corey, Safety Engineer for Perini Building Company. The nature, scope and purpose of the accident investigation was explained and entry was granted by the employer.

**WALKAROUND OBSERVATIONS:**

Trump International Hotel and Tower, level G5 of a parking garage under construction.

**ACCIDENT:**

- Starting at approximately 0600 hrs. on 12/5/06, a cement finisher, a General Laborer Foreman (Employee #1) and his crew of mudcutter employees were assigned to pour the concrete delay strips using "Georgia" buggies. The buggies were used because the concrete pumper truck was stationed on the east side of the building due to congestion and blocked areas on the other sides of the garage. Prior to this the crew had been pouring in the following areas: 12/4/06, on the south side of the garage at levels G6, G5, G4 and G3; 12/5/06, on the south side of the garage at levels G2 and G1 and on the north side at levels G5 and G6 and had no problems with the buggies except as noted in #2 and #5 below.
- At approximately 1015 hrs., Employee #3, operating a Miller MB16 Scoot-Crete Stand On Power Buggy, Perini #BU083 on G6, struck himself in the left shin with the operator's platform. While standing on the ground he attempted to reverse the buggy away from the pumper hose by squeezing the travel speed control lever (accelerator) slightly but while squeezing the lever, the lever "malfunctioned" causing the buggy to reverse too fast and striking him. Employee #3 sustained a laceration to his shin but didn't seek medical attention. At approximately 1035 hrs., Employee #3 finished the pour on level G6 and took the buggy down to level G5.
- Employee #1 was assisting his crew off and on during the morning starting on level G2 while also accomplishing his other assigned duties that took him to other parts of the building / construction site. His crew were using two of three buggies available, pumping concrete into the buggies, spreading the concrete and using a stick vibrator. Employee #1 left G2 and after 2 to 3 hours went to the west side of level G5 to again assist his crew. Employee decided to operate the third buggy that Employee #3 had brought down from G6. Employee #3 told Employee #1 that one wheel was shaky and the buggy was acting up but he couldn't tell what was wrong "it just wasn't feeling right". He also told Employee #1 about his accident, to be careful and then departed the area.
- Employee #4 filled Employee #1's buggy 3/4 full of concrete more than once while on level G5. While on G5, the buggies would travel from the east side, where the concrete pumper was located, travel approximately 209 feet, through an access opening between a plywood covered manlift shaft and a concrete column in order to get to the west side concrete delay strip.
- At approximately 1042 hrs., Employee #4, who was pumping concrete into the three buggies was struck in the right knee by the buggy that Employee #1 was operating. Employee #1 complained that the buggy wouldn't stop and it wasn't

working right. Employee #6 suggested to Employee #1 that he shouldn't use the buggy and to get another one but the employee didn't know if Employee #1 heard him due to the loud noise from the buggy.

6. A Carpenter Foreman and his own crew were on level G4 checking the reshores prior to the concrete pour of the delay strip on level G5. The Carpenter Foreman left his crew on level G4 and went up to level G5 to watch Employee #1 and his crew accomplish the pour.

7. At approximately 1049 hrs., Employee #1 backed the buggy away from the pour area to maneuver through the access opening to either 1) get more concrete or 2) take the buggy down to the ground and tag it out of service. As Employee #1 neared the manlift wall, the buggy's operator platform struck a portion of the manlift shaft guarded by a plywood wall. The plywood swung up and the buggy went half way into the shaft. His crew looked up and saw Employee #1 in the shaft, ran to help him but the buggy was still running and it "jumped" causing Employee #1 to fall off the operator's platform. Employee #1 fell down the shaft approximately 70 feet landing in the pit bottom. A piece of the manlift plywood cover fell on him.

8. The Carpenter Foreman call the manlift, which was above level G5, and told the operator to stop. He also called management and requested medical assistance. Employee #6, just arriving on level G5 for lunch, was told to secure the buggy so he retrieved a forklift from level G4, another employee retrieved a chain fall, and Employee #6 pulled the buggy out of the manlift shaft to approximately 4 1/2 feet away from the opening.

9. Employee #1 was pronounced dead at the scene. Autopsy revealed that Employee #1 sustained multiple injuries / fractures.

10. Interviewed employees stated that while Employee #1 was backing up the accelerator stuck and the brake didn't work either.

#### INVESTIGATION REVEALED THAT:

1. **A personnel and burden carrier operators' training program was not conducted.**

- Perini Building Company, Trump International Hotel & Tower, Job Specific Safety Plan: Job Hazard Activity: Motor Vehicle Operations - Motor vehicle accidents, "All operators properly trained."
- Perini Building Company Safety Manual, Date of Issue 2/1/02, Date of Revision 5/1/05, Section 1.D., Education and Training, paragraph 2.8, "OSHA Training Requirements - "OSHA requires that training be conducted in the following subjects if applicable or necessary. This training may be accomplished through new hire orientation, weekly toolbox meetings, the OSHA 10 or 30 hour courses or special training. Specific requirements can be found in 29 CFR Part 1926 (OSHA Manual) with the applicable Subpart shown next to the subject. #15. Motor vehicles (includes forklifts) (Subpart O)."
- The labor union does not train their members on how to operate the buggies.
- The operators, maintenance and safety manual for the Georgia Buggy was not available. The employer purchased the buggy in 2000.
  - On 12/7/06 the employer provided an internet copy of the "Operational, Maintenance and Safety Manual for the MB16 Scoot-Crete Power Buggy, dated-revised June 14, 2004.
  - On 12/11/06, the employer was requested to provide an "Operational, Maintenance and Safety Manual for the MB16 Scoot-Crete Power Buggy. Received an internet copy of the manual but the requested original manual has not been received as of 12/7/06."
  - On 12/18/06 a second manual, "The Miller Scoot-Crete MB-16 Stand On Power Buggy "Operation, Maintenance and Safety Manual", was provided via e-mail entitled "MB16 & 21 Maintenance & Safety pre 2004", which the employer had received from the manufacturer.

- Safety Meeting for Laborers: 4/28/06 by Carl Merritt, #3. "We talked about the use of equipment and the need to do a safety check before using." Employees interviewed stated that they are required only to check the gas and oil on the buggies. Employees also stated that they don't stop while pouring the concrete, sometimes working through break and lunch, because of the limited time before the concrete would start to set.
- Employees received:
  - Newcomers Orientation
  - Every Monday - Safety Meetings. During safety meetings employees are told that they don't have to use equipment and machines that have problems and are told to report it and not use it.
- On The Job Training (OJT). Haven't seen the operators manual for Miller MB16 Scoot-Crete Power Buggy at Perini.
- Haven't received training on the buggy at Perini. I learned with another co-worker (at another job).
- Perini Building Company Trump International Hotel & Tower, Safety Audit, Project #614, Dated approximately 5/9/06 - Contractor: Perini, Violation: Georgia buggy training for laborers, Action Taken: Laborers to have field class on georgia buggy operation ASAP/Will address all equip training in next meeting as well. Requested documentation of training from Chad Corey, Safety Engineer, on 12/18/06 and 1/24/07. Call from Chad Corey on 1/25/07 and he will look at the daily log for last year and check it for the training but it will take awhile. As of 1/30/07 no documentation received.

2. **Accidents involving personnel and equipment were not reported.**

- Trump International Hotel & Tower OCIP Safety Orientation, Site Specific Items, #1: "Perini injury reporting procedures (Incident report, C-1, C-3). All injuries must be reported to the supervisor. Failure to report injuries the day of occurrence may result in reduced or denied benefits."
- AND
- Perini Building Company, Job Specific Safety Indoctrination / Orientation, "Injuries: - Report Immediately."
- AND
- Perini Safety Handbook, Page 7, Basic Safety Rules, Rule Two: Report All Injuries, Large or Small - "Regardless of how minor an injury may appear, report it to your foreman or superintendent."
- AND
- Perini Building Company Safety Manual, Date of Issue 2/1/02, Date of Revision 5/1/05, Section 1.B., Administration and Responsibilities, #9, General Foreman, paragraph d. - "Ensures that injuries/illnesses, fire, accidents, near-misses, etc. are promptly treated, report and investigated." AND paragraph g. - "Investigates the cause of accidents and injuries/illnesses, and completes reports as required."
- **Two employees, injured by the same buggy that was involved in a fatal accident, had not been reported.** Abated During Inspection 12/11/06.
  - On the same day as the accident, Employee #3, using the same buggy and on level G6, struck himself in the left shin with the operator's platform at approximately 1015 hrs., 40 minutes before Employee #1's accident. While standing on the ground the employee attempted to reverse the buggy away from the pumper hose by squeezing the travel speed control lever slightly but while squeezing the lever, the lever "malfunctioned" causing the buggy to reverse too fast and striking him. Employee #3 sustained a laceration to his shin. The employee told Employee #1 about the accident and to be careful. Employee #3 didn't seek medical attention. Employee #3 finished the pour on level G6 and took the buggy down to level G5 at approximately 1035 hrs.
  - On the same day as the accident, Employee # 4, standing on level G5, was pumping the concrete into the three buggies and was struck in the right knee by Employee #1 who was using the same

buggy that was involved in the accident. Employee #4 sustained the abrasion 3 to 4 minutes before the accident. **Employee #4 attempted to notify the Perini Safety Director about his accident but the Safety Director only wanted to talk to employees witnessing Employee #1's accident.**

3. **The employer failed to replace the instructional and safety decals on the Miller Scoot-Crete MB-16 Stand On Power Buggy when they had become destroyed, faded and illegible.**
4. **A weekly chassis lubrication on the Miller Scoot-Crete MB-16 Stand On Power Buggy had not been accomplished.**
  - Employees, who utilize the buggy on this construction site, had been instructed to check the machine for fuel and oil only.
  - Perini Safety Handbook, page 29, Timeout Safety Tip: The Pilot's Check - "Just as a pilot does a walk-around check of this airplane before takeoff, all operators should make a comprehensive inspection of their equipment before getting started each morning. - Check all fluid levels and hoses; and - Make all necessary repairs."
  - Employees would like to see better maintenance. Don't know if the machines are working right or not. Nobody tells us if the machine is in good condition or not.
  - **Maintenance (work orders and machine service) reports were request for the buggy involved in the accident. Reports were provided from 3/05 to 11/06. The company did not have reports available from 2000 to 2005. The maintenance reports did not include weekly chassis lubrications.**

Vehicles were not checked at the beginning of each shift:

5. **The service brake would not stop the buggy unless the vehicle was being driven slowly;**
  - Interviewed employees stated that while Employee #1 was backing up the accelerator stuck and the brake didn't work either.
  - Report Unsafe Conditions - S20: 5/30/06 by Carl Merritt. "Report missing machine guards - report broken hand rails - report scaffolding and tools that are in unsafe condition - report for correction ALL unsafe conditions;  
AND
  - Perini Building Company, Job Specific Safety Indoctrination / Orientation, Project Name: Trump International, Job#: 614: "Safety Conduct - Report all unsafe conditions (Fix it if you can.)  
AND
  - Trump International Hotel & Tower, OCIP Safety Orientation, "Safety Conduct and General Safety Topics, #1.: "Report all unsafe conditions (fix if you can)."
  - Employees interviewed stated that they are to report unsafe conditions, told not to use it and report to the supervisor immediately.
6. **The parking brake was not operational.**
7. **The Hydraulic Fluid Cap could not be opened unless a wrench was used.**
8. **A return spring to the Travel Speed Control (accelerator) Assembly was broken.**
  - According to an Engineer, hired by the OCIP Trump insurance company, the Hydrostatic control level (return spring) in the "travel speed control lever" (accelerator) of the buggy was broke.
9. **The transmission fan blades were missing or severely damaged.**

**MILLER SPREADER (Manufacturer) - Summary and conclusions on inspection of MB16, S/N 14355, Las Vegas, Inspection conducted January 3-4, 2007, Conducted by Fred Russell and Jim Rochette. Report received 1/26/07.**  
"Note: All measurements and operational testing performed by Mike Stapleford of Vollmer-Gray Engineering Laboratories." The following are excerpts from this report:

- Inspection Observations:

C) General machine condition -

- Page 1, paragraph 3) - **"Approximately 3/4 of dash operation label missing.** A small portion under the engine stop switch and to the left of the directional control lever remains intact and mostly legible. The remaining legible portion contained instructions on stopping the engine, dumping the bucket, and the following safety statement: **"THE SAFETY AND OPERATING INSTRUCTIONS FOR SCOOT-CRETE EQUIPMENT ARE FOR YOUR PROTECTION. CARELESS REGARD OF THESE INSTRUCTIONS AND OTHER SAFE CONSTRUCTION PRACTICES COULD RESULT IN ACCIDENT AND INJURY."** Missing from the dash label were engine starting instructions, operating instructions, directional control lever instructions, dump control lever instructions and the following safety statement: **"BEFORE OPERATING THIS EQUIPMENT -- READ ALL MACHINE DECALS. SEE DECALS ON THE REAR OF BUCKET/PLATFORM -- READ THE OPERATION MANUAL -- RECEIVE TRAINING ON THE SAFE OPERATION OF THIS VEHICLE".**
- Page 1, paragraph 4) - **"Bucket safety label in place and mostly legible but badly peeling at edges." (The label was partly covered in concrete making it very difficult to read as seen in the photos taken during the inspection of the buggy.)**

D) Recommended pre-operation inspection, as per operator's manual and safety labels.

- Page 1 and 2, paragraph 3) - **"Speed control lever linkage appears to be intact but lever travel is not smooth and has a distinct notchy feel in both directions. When squeezed and released the lever does NOT return. We observed a broken speed control lever return spring (Miller PN SN0100)."**

Note: "This is especially significant because the speed control lever and linkage, in conjunction with the hydrostatic transmission, provide the primary braking system on this vehicle." "When released, the speed control lever is designed to return immediately and automatically". **"As noted, this spring was broken and not operational on the subject machine. Simply releasing the speed control lever on this machine would not have stopped the vehicle as it should have."**

E) Brake Inspection (no guards removed)

- Page 2, paragraph 4) - **"Engaged and locked parking brake will not stall engine, in either direction. With parking brake engaged and locked, machine moves freely from a complete stop, at full throttle, as speed control lever is engaged. Engine does not lug."**
- Page 2, paragraph 5) - **"At 1/2 - full engine throttle, and full engagement of speed control lever, Stapleford depressed the mechanical service brake pedal to approximately 4-5" below operator platform with little braking effect. (Note: this is 4-5" below the correctly adjusted pedal position specified in the manual indicating that mechanical braking system is grossly out of adjustment.)** With excessive braking force applied to pedal, speed control lever gradually disengages allowing machine to stop in approximately 15' - 20'."

F) Speed Control Assembly with engine off. (hydraulic reservoir cover removed)

- Page 3, paragraph 4) - **"Speed control lever return spring, Miller part no SN0100, is broken. Top loop was missing and spring hung loosely by the bottom loop from transmission pivot bar at the time of inspection."**

- Page 3, paragraph 5) - "Speed control lever did not disengage when released. Transmission remained fully stroked."
  - Page 3, paragraph 6) - "Operating observations with engine running:
    - a) **At any engine speed, and any travel speed, speed control lever will not return when released. Machine does not slow.** As defined in the missing portion of the dash label, and in the Operation, Maintenance & Safety Manual that would have accompanied this machine when shipped from Miller, releasing pressure on the speed control lever should allow the lever to automatically return and stop machine travel. Operators are advised to remove the machine from service until this problem, or any others discovered during the recommended daily machine inspection, are resolved.
    - b) At any engine speed, and any travel speed, machine will stop if lever is manually returned. Under these circumstances it appears to stop in approximately the same distance (1'-3') as a properly adjusted unit with fully operational speed control lever return spring."
  - Page 3, paragraph 7) - "After replacing speed lever control return spring (SN0100) the lever still did not return under the following conditions:
    - a) Engine off
    - b) Engine at idle, directional control lever in Neutral, speed control lever disengaged
    - c) Engine at approx. 1/4 throttle, directional control lever in either Forward or Reverse, speed control lever slightly depressed (estimated machine travel speed < 2 MPH)"
  - Page 3, paragraph 8) - At full engine throttle and full speed control lever engagement, in Forward or Reverse, lever did not return for either of first two runs of approximately 40'-50'. On runs 3-6 the machine seemed to slow more with each run until on final run, the lever returned slowly and machine gradually stopped in approximately 12'-15'. At that time this testing was discontinued due to the concern that it could somehow change the speed control linkage from the condition it was in at the time of the accident."
  - Summary and Conclusions
    - Page 4, paragraph A) - "The maintenance condition of the subject machine was substandard and not within recommended factory tolerances in several critical areas. Consequently, this machine was unsafe to operate on the day of the accident."
    - Page 4, paragraph B) - "Instructions provided in the intact Safety label on the bucket of the subject machine and in the Operation, Maintenance & Safety manual that accompanied this machine when shipped from Miller were not followed on the day of the accident."
    - Page 4, paragraph C) - "Given that the machine's speed control/hydrostatic braking system and its reserve mechanical braking system were in a substandard state of maintenance and were, therefore, not fully operational, it is unlikely that the deceased (Employee #1) could have used either of these means to stop the machine on the day of the accident."
    - Page 5, paragraph E) - "It is clear from the observations of the above braking systems that none of the distinct braking subsystems on the subject machine were fully functional on the day of the accident. The vehicle's speed control system was damaged and was not capable of being operated as designed. The speed control lever return spring was completely broken, preventing the speed control lever from automatically returning when released. Also, the distinct notchiness in the travel of the speed control lever indicates that other parts in the speed control linkage were not operating as designed and were in need of inspection and adjustment or replacement."
- "Further, the reserve mechanical service brake was not properly adjusted. This braking system is designed to stop a fully loaded vehicle in the event the primary hydrostatic service brake system becomes inoperable, as it was on the day of the accident. As observed during this inspection, due to the system being grossly out of adjustment, application of the mechanical service brake on the day of the

accident would not have stopped the subject machine. It is apparent from the tests conducted that the entire mechanical braking system on the subject machine is not within recommended factory adjustment tolerances and fails to meet the braking requirements of ASME B56.8-1993, as will a properly maintained and adjusted machine."

- Page 6, paragraph F) - "The speed lever control system, as observed, was in a state of disrepair and in an unsafe condition due to the following":

1) "The speed control lever return spring was completely broken allowing the pump to remain stroked when the speed control lever was released."

3) "These conditions were obvious and would have easily been observed during the daily inspection procedure outlined in the intact Safety label on the bucket of the subject machine and in the Operation Maintenance & Safety manual that accompanied this machine when shipped from Miller. Further, as recommended, any adjustments or repairs should then have been made before the machine was put into service that day."

- Page 6, paragraph G) - "It is significant that when the subject spring was exchanged for a new factory replacement spring (SN0100) the speed control lever still did not return when released. As observed, this allowed the machine to continue moving in either direction when the lever was released. Therefore, in addition to the broken spring, other irregular conditions in the speed control linkage and/or transmission itself further restrict the proper operation of the speed control system."

"For the above reason, the operators of the subject machine that day, including Employee #1, should have been aware prior to the accident that the machine did not properly stop when the speed control lever was released. Nonetheless, the subject machine was operated on the day of the accident."

- Page 7, paragraph J) - "According to Mike Norwood, Trump Safety Engineer, the pace of work at the site was fast and the machine was probably being operated at, or near, maximum speed during the day of the accident. Also according to Norwood, the distance between the actual pour location on the 5th floor and the elevator shaft was approximately 39'. Therefore, assuming a machine speed of 5 mph (top rated speed 7 mph), the distance to the elevator shaft could have been traversed in 5-6 seconds."
- Page 7, paragraph K) - "Approximately 3/4 of the dash mounted operation label was missing. Included in the missing section were the machine operating instructions, including proper use of the speed control lever to slow and stop the vehicle."
- Page 7, paragraph L) - "As observed, the dash mounted engine stop switch and the directional control valve on the subject machine were both fully operational. Had Employee #1 operated either of these controls soon enough, by depressing the engine stop switch and/or shifting the directional control valve out of Reverse, the machine might have stopped, or at least slowed, thereby reducing its momentum prior to impacting the elevator shaft wall. Mike Norwood indicated that when he arrived at the scene of the accident he observed that the machine had impacted the temporary wall surrounding the 5th floor elevator shaft, broken through, and had come to rest on its frame. At that time he observed that the engine on the machine was still running, indicating Employee #1 had not used the dash mounted engine stop switch."

Two serious citations were noted for this company during the accident investigation portion of the inspection and program reviews.

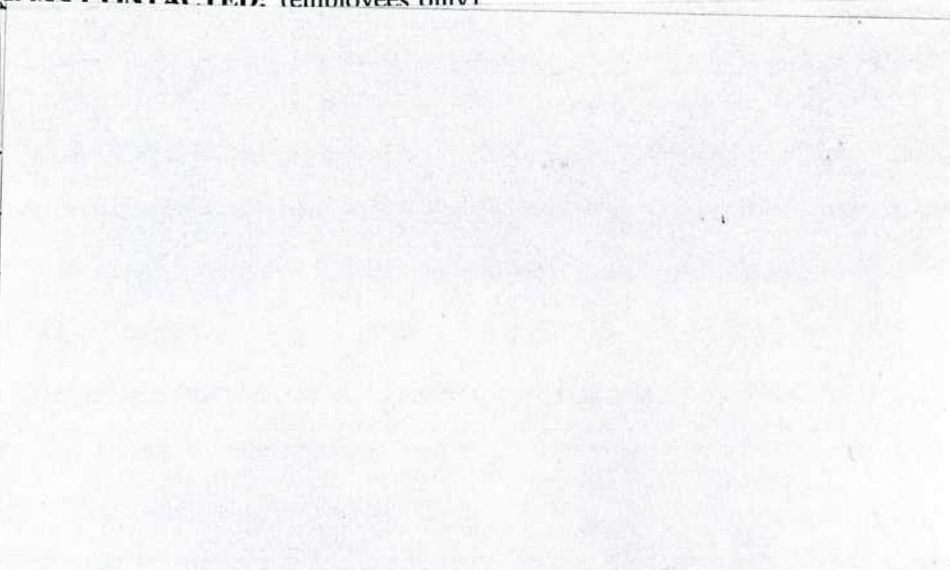
**CLOSING CONFERENCE:** (mention employer and/or employee representative closings)

The closing conference was held with Lisa Kane, Safety Director and Chad Corey, Safety Engineer for Perini Building company. The standard violations were explained and posting requirements for the proposed citations were discussed. The Safety Specialist did not brief them on the "Employer Rights and Responsibilities Following an OSHA Inspection", OSHA-3000S as both employer representatives had been to numerous previous closing conferences. The Safety Specialist provided an Employer Survey Form.

A second telephonic abbreviated closing conference was held on 2/2/07 with Lisa Kane and Chad Corey. A third serious citation would be proposed concerning 29 CFR 1926.21(b)(2).

**OTHER PERSONS CONTACTED:** (employees only)

- Employee #1,
- Employee #2
- Employee #3
- Employee #4
- Employee #5
- Employee #6
- Employee #7
- Employee #8



Inspector's Signature	<i>L. J. Clement</i>	Date	2/2/07
Accompanied By			

Nebraska Revised Statute 618.365(2) prohibits use of this material for any civil action other than one within the scope of this chapter.