



MIOSHA NEWS

Director's Column	2
Connecting Update	2
New Developments	3
Construction Update	4
General Industry Update	5
Consultation & Training Update	6
Technical Information	7
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Imperial Construction Fined \$131,600 for Fatality

MIOSHA concluded the investigation of Imperial Construction Company, Inc., of Detroit, on October 13, 2009. The company received \$131,600 in proposed penalties for allegedly failing to adequately protect employees from trenching and excavation hazards.

"This employer exposed his employees to trenching hazards which led to the death of one worker," said **DELEG Director Stanley "Skip" Pruss**. "This tragic workplace fatality could have been avoided. It is critical for this employer, and all construction employers, to protect their workers from the risks of cave-ins and other excavation hazards."

Excavation protection is essential, since the sides of a trench can collapse with great force and without warning, burying workers beneath tons of soil before they have a chance to react or escape. To ensure worker safety at excavations more than five feet deep, walls must be sloped or shored, or trench shields or boxes must be used, to prevent serious injuries or fatalities.

Accident Investigation

Imperial Construction Company was contracted by the city of Detroit to do water main repair work. On July 7, 2009, three employees were working on a residential water main break at 18844 Healy St. in Detroit.



The sides of this Imperial Construction excavation suddenly collapsed, fatally injuring worker Jose Aguilar.

The employees were working in an excavation approximately 7 ft. deep, 5 ft. wide and 6 ft. long. Soil in the area was water saturated and the conditions were dangerous.

One employee was undercutting the roadway with a shovel to expose the water main at the bottom of the excavation. The sides of the excavation suddenly collapsed, along with the overhanging concrete, trapping 36-year-old worker **Jose Aguilar**. Detroit fire and rescue personnel worked for more than two hours to rescue Aguilar, who was pronounced dead at a local hospital. A second employee was almost engulfed but managed to escape without apparent injury.

This employer is well aware of the MIOSHA trenching requirements. An inspection conducted on March 6, 2009, revealed dangerous excavation conditions, similar to those in this investigation. That inspection (#308889591) is under appeal. The company has been inspected six times in the last five years and has been issued: one Willful violation, 10 Serious violations and three Other-than-Serious violations.

Employer Responsibility

"Unprotected excavations are among the deadliest construction hazards in Michigan. Workers are vulnerable, even in excavations that aren't very deep," said **MIOSHA Director Doug Kalinowski**. "Every excavation over five feet must be shored or sloped. Workers should never be put at risk because an employer cuts corners."

Underground utility construction work can be extremely hazardous. In Michigan, only a small percentage of construction employees are engaged in underground work, but a disproportionate number of these workers are killed in trench cave-in accidents. Since 2003, statistics indicate 10 construction workers have been killed in trench

accidents in Michigan.

Trench sloping and support systems are required by MIOSHA Construction Safety Standard, Part 9, Excavation, Trenching, and Shoring. This standard covers the digging of excavations and trenches that an employee is required to enter, and the supporting systems used on construction operations.

MIOSHA Citations

For this fall fatality (Inspection - #307766014), Imperial Construction Company received a combined total of four alleged Willful violations with proposed penalties of \$128,800. They also received one alleged Serious violation with a proposed penalty of \$2,800, for total proposed penalties of \$131,600.

The alleged Willful violations included:

- No ongoing inspection by qualified person;
- Street/sidewalk not supported or removed;
- Spoils pile retained at edge of excavation; and
- Excavation was not properly sloped/shored;

Based on repeated demonstrated indifference to several provisions of the trenching standard, the four Willful classifications were documented. To achieve the appropriate deterrent effect, the maximum penalty is warranted for the alleged Willful violation that the excavation was not properly sloped/shored.

A Willful violation is one committed with an intentional disregard of the requirements of MIOSHA regulations, or plain indifference to employee safety and health.

Based on provisions in the MIOSH Act, Public Act 154 as amended, every Willful violation connected to a fatality is referred to the Michigan Attorney General's Office for criminal investigation and/or prosecution. The company has appealed the citations and the MIOSHA case will be held in abeyance during the Attorney General's review/investigation.

Trenching Hazards

Since 2003, MIOSHA has investigated 10 fatal trench cave-in accidents.

MIOSHA requires that workers in trenches and excavations be protected.

Fatal hazards include:

- Cave-ins, the most feared hazard,
- Asphyxiation due to lack of oxygen in a confined space,
- Inhalation of toxic fumes,
- Drowning, and
- Electrocution/explosion from contact with underground utilities.

Trenching Safety

Pre-planning is vital to accident-free trenching:

- Contact utilities,
- Plan for traffic control,
- Determine proximity to structures.

Safety cannot be improvised.

The following concerns must be addressed by a competent person:

- Evaluate soil conditions.
- Select and construct appropriate protective systems.
- Test for low oxygen, and hazardous gases and vapors.
- Provide safe access into and out of the excavation.
- Address water accumulation.
- Inspect the site daily at the start of each shift, following a rainstorm, or after any other hazard-increasing event.



Working to Create Michigan's Future Today



Doug Kalinowski, CIH
Director

OSHA's 2010 Regulatory Agenda

On Friday, December 3, 2009, **David Michaels, PhD, MPH**, was confirmed by the U.S. Senate to serve as the Assistant Secretary of Labor for the Occupational Safety and Health Administration (OSHA). MIOSHA looks forward to working with Dr. Michaels and the federal OSHA leadership team.

U.S. Secretary of Labor Hilda L. Solis unveiled the U.S. Department of Labor's regulatory agenda on December 7, 2009. The full regulatory agenda focuses on improving the

Our enforcement program has evolved over the past three decades, in recognition of the changing workplace landscape. Combining the safety and health operations in the General Industry and Construction Division's strengthened our program and brought more consistency and efficiency to our delivery of services.

Our enforcement agenda includes:

- Targeting the most hazardous industries,
- Focusing on the hazards most likely to cause serious injuries, and
- Tracking the bottom line results (injuries, illnesses and fatalities) of these activities.

As a State Plan State, MIOSHA is required to develop equally effective rules within six months of federal OSHA changes. In addition to the unique state rules under development in Michigan, we will closely monitor OSHA's rulemaking on their major projects. We will keep you informed of developments on both the state and federal level.

“Our full regulatory agenda focuses on improving the lives of working Americans and leveling the playing field for businesses that play by the rules.” Secretary of Labor Solis

lives of working Americans and leveling the playing field for businesses that play by the rules.

Secretary Solis' vision of *“Good Jobs for Everyone”* requires a safe and healthy workplace for all workers. OSHA's regulatory agenda is designed to help workers and employers identify and control hazards in the workplace and prevent injuries, illnesses and fatalities.

OSHA's major projects to implement the Secretary's vision are:

- Airborne Infectious Diseases,
- Cranes and Derricks,
- Crystalline Silica,
- Combustible Dust,
- Hazard Communication Standard - Global Harmonization System,
- Beryllium,
- Diacetyl, and
- Walking/Working Surfaces.

MIOSHA's Enforcement Agenda

MIOSHA share's Secretary Solis' vision of *“Good Jobs for Everyone.”* We will work with every employer that makes a good faith effort to protect their workers. However, we will continue to take strong enforcement action against employers whose actions result in fatalities. Two recent examples are Imperial Construction Company (cover) and Award Window Cleaning Services (page 5).

MIOSHA's 35th Anniversary

The year 2010 marks the 35th year of the modern-day MIOSHA Program. Since it's creation in 1975, employers and workers have changed in many ways – total employment, types of industries and processes, productivity, quality and culture.

The fundamental mission of MIOSHA over the last 35 years has not changed: to reduce workplace injuries, illnesses and fatalities through strong enforcement and comprehensive outreach programs.

However, our program has evolved in a number of ways to help meet the needs of the people that we serve. Some changes include:

- Created the “Connecting MIOSHA to Industry” initiative,
- Partnered with Macomb Community College to create the MIOSHA Training Institute, which has more than 4,000 participants,
- Partnered with employer and employee organizations to promote positive changes in workplace safety and health culture across Michigan, and most recently,
- Created a MIOSHA Facebook page.

We appreciate your input as we work together to eliminate workplace injuries, illnesses and fatalities.

It Starts with Culture

Management commitment is critical in establishing organizational culture and for setting direction. This applies to all facets of any organization – production, quality, sales, marketing, research and development – and the safety and health of workers.

Organizational culture is described as top management's world view. More plainly, it is simply the way things are done in an organization. Workplace culture is made up of beliefs, values, and principles to form the foundation for an organization's management system and is demonstrated through actions and behaviors.

MIOSHA recently strengthened its efforts to create a culture that supports and demands the kinds of behaviors needed to be successful in working with employers and workers, as well as supporting our own employees. This new statement of commitment and values was launched at our September 2009 agency meeting.

We asked all MIOSHA staff to challenge us by lifting up a value and telling us what they need from the agency to be able to demonstrate that value. And, we challenged our staff to lift up a value and commit to an action or behavior that would increase the times they demonstrate the selected value.

Below is a summary of our new MIOSHA statement of commitment and values. We invite you to hold us to these!

MIOSHA's Commitment

We work collaboratively with our customers to help create safe and healthful work environments that preserve workers' quality of life and protect the employers' profitability. MIOSHA's commitment includes:

- Develop our own health and safety management system as a model to others.
- Go the extra mile to effectively demonstrate the importance of a strong safety culture.
- Recognize employers who go beyond minimum requirements and exhibit commitment by marked improvements to safety and health.

MIOSHA's Values

Integrity

- We take pride in honest, effective personal interaction with our customers.
- We are reliable, trustworthy, and honor our commitments.
- We stand for what we believe in.
- We advocate and adhere to safe work practices, even when the solution is difficult.



Martha Yoder
Deputy Director

Excellence

■ We have experienced and knowledgeable staff in the fields we regulate.

■ We take personal pride and responsibility in our work and are accountable for monitoring our own performance.

■ We strive for continuous improvement in our activities and services.

■ We view interactions as an opportunity to learn and educate about work-related safety and health issues.

Inclusion

■ We promote employer and employee participation in enforcement and consultations.

■ We include our staff, stakeholders, and partners in making decisions that affect our customers.

■ We seek diversity by promoting group interaction in workgroups and committees.

■ We ask our customers about the quality of our services and seek recommendations for improvements.

Teamwork

■ We encourage internal communication and cross-divisional interactions and projects.

■ We actively cooperate to achieve our common goals.

■ We maintain a seamless network throughout the agency to ensure customer needs are met.

■ We strive to find what we have in common rather than focus on our differences.

Customer Focus

■ We assist our customers in achieving their safety and health goals.

■ We strive to “Connect MIOSHA to Industry” through collaboration and information sharing.

■ We provide consistent safety and health training statewide through CET services and the MTI.

■ We offer a variety of awards based on successful safety and health management systems, developing ergonomic innovations, and improving the safety culture in the workplace.

■ We encourage partnerships and alliances and mentoring opportunities for industry peers.

\$1 Million for MIOSHA Worker Protection Grants

On November 23, 2009, MIOSHA awarded 20 Consultation Education and Training (CET) Grants for FY 2010 totaling \$1 million to help protect Michigan workers employed in high-hazard work environments.

"This \$1 million dollar investment in Michigan's working men and women gives employers important tools to protect their workers from being injured on the job," said DELEG Director Stanley "Skip" Pruss. "Employers today recognize that creating a safe and healthy work environment protects their most valuable asset – their workers."

The Consultation Education and Training (CET) Division provides outreach services in a variety of formats. The MIOSHA CET Grant program provides additional options for safety and health education and training to employers and employees.

Grants Focus on Hazard Prevention

Most of the grants focus on the performance goals identified in the FY 2009 – 2013 MIOSHA Strategic Plan, with a particular emphasis on hazard recognition and prevention for high-hazard industries.

Work experiences for teens can be hazardous. Each year in the U.S., nearly 70 teens die from work-related injuries, and 200,000 seek emergency medical treatment. Since 1995, PASSES has presented its classroom safety program to 150,000 Michigan teens. PASSES has been awarded a special three-year CET grant to train students to be team safety leaders.

The 20 statewide projects include a wide range of training activities and many offer computer-based training modules. Strategic training topics include: emergency planning, response, and recovery; workplace violence prevention; firefighter rescue; food processing; long-term care; asbestos awareness; ergonomics; youth safety; road construction; fall protection; and construction onsite walkthroughs.

"Protecting workers is the mission of the MIOSHA program. Working collaboratively with these 20 organizations, we can maximize our safety and health efforts," said MIOSHA Director Doug Kalinowski. "These CET Grants are an important part of our outreach efforts."

CET grants are awarded on a competitive basis to nonprofit organizations, such as universities, management/employer groups, labor/employee organizations, hospitals and service agencies. Grant recipients must detail in their proposals how their efforts will meet one or more of the objectives.

These grants continue MIOSHA's commitment to greater training of safety practices and fewer workplace injuries, illnesses, and fatalities.



MARO Employment and Training Association provides safety training to their member organizations, including TRICO Opportunities in Kingsford.

FY 2010 CET Grant Projects

Alpena Community College will deliver targeted safety training in the high hazard industries of construction, machinery manufacturing, transportation manufacturing, and wood products manufacturing, primarily with smaller employers.

Associated General Contractors (AGC) of Michigan will deliver advanced safety and health training to individual contractors and their employees. Topics include fall protection, scaffold safety, confined space, steel erection, asbestos/lead/silica awareness and respiratory protection.

Bay de Noc Community College will provide safety training and technical assistance to owners and employees in the forest products industry with an emphasis on sawmills and secondary wood manufacturing.

Cassie Stern Home Health Care/SEIU will provide safety training in the home health care field, and will bring critically needed health and safety instruction to a home-based statewide workforce of independent providers.

Center for Workplace Violence Prevention, Inc. will host the *Online Resource Center for Violence Prevention and Crisis Recovery*, develop manuals, and conduct seminars on violence prevention and crisis recovery.

Construction Association of Michigan (CAM) will focus their construction jobsite training on the four causes of over 88 percent of all injuries in the construction trade: Falls, Caught-In, Struck By, and Electrocutions.

Eastern Michigan University Center for Organizational Risk Reduction (EMU CORR) will offer an asbestos awareness course to address and help prevent inadvertent exposure of employees to lead and airborne asbestos fibers.

Lansing Area Safety Council will provide on-site safety and health training to employees in long-term care facilities on a wide range of topics, including safety orientation, aggressive behavior, bloodborne pathogens and tuberculosis awareness, disaster preparedness, fire safety, ergonomics, slips, trips and falls, and safe lifting.

Macomb Community College is developing advanced, in-depth training through the *MIOSHA Training Institute (MTI)* on MIOSHA standards and other safety and health topics. The MTI delivers affordable, consistent seminars based on the most up-to-date industry standards in a hands-on, interactive environment.

MARO Employment and Training Association will provide training to rehabilitation organizations and their staff with disabilities. Training will be presented in two formats: customized on-site and a computer-based program. DVDs will be developed for training in conjunction with on-site visits.

Michigan Association of Chiropractors will provide back safety and ergonomics training to workers in the nursing home and residential care facilities, manufacturing industries, warehousing and storage, merchant wholesalers, and landscaping industries through its WorkSafe program.

Michigan Construction Trades Safety Council will produce a "MIOSHA Walkthrough for Construction" CD-ROM. This CD will be a high-end, interactive training tool that makes safety and health



PASSES instructor Cameron Pichan helps prepare Michigan high school students for a safe work experience.

training interesting and memorable. It will be distributed to more than 120,000 construction companies throughout Michigan.

Michigan Farm Bureau will provide on-site and classroom safety and health training that targets agricultural employers, managers, service providers and facility owners as part of their Emergency Preparedness Series and Facility Review.

Michigan Infrastructure and Transportation Association (MITA) will develop specialized company training sessions and statewide conferences to reduce injuries in the heavy construction industry. The grant will allow MITA to build a 3-tier training program to help protect workers from bridge and highway construction hazards.

Michigan State AFL-CIO will provide training to new employees and incumbent workers affected by new technology and new work processes, equipment or operation. Training topics will include back injuries, lifting techniques, workplace hazards and recognition, right-to-know and hazardous substances.

Michigan State University School of Criminal Justice will offer 24-hour machine rescue operation level training courses in hands-on workshops using equipment and props for firefighters who perform machine rescues, and for fire officers who are responsible for managing the rescue scene.

Parents for Student Safety Employment Standards (PASSES) works with high schools to provide student training and web-based digital training. PASSES teaches teens, entry-level workers, and school personnel in a variety of hazardous industries. PASSES will provide "safety team leaders" extended training over three years on safety fundamentals.

Retail, Wholesale, and Department Store Union (RWDSU) will provide injury prevention training in food processing facilities. They will focus on repetitive motion injuries, establishing health and safety committees, emergency preparedness, lock out/tag out, and powered industrial trucks.

United Auto Workers (UAW) will provide safety and health training to industries with fabricated metal products, warehousing and storage, machinery manufacturing, hospitals, and plastics and rubber manufacturing. The training will include a facility walkthrough and hazard prevention training.

University of Michigan Center for Ergonomics has developed and will deliver on-site customized ergonomics seminars, ergonomics job analysis, follow-up activities to document workplace changes, and development of ergonomic programs, to small and medium-sized companies.

Bob Pawlowski, CIH, CSP
Director, Construction
Safety & Health Division
517.322.1856

Road Construction Overtime Initiative

By: Bob Pawlowski, CSHD Director

Road and bridge construction is one of the most hazardous construction activities. In 2008 and 2009 the Construction Safety and Health Division (CSHD) investigated **six fatalities** related to roadwork and infrastructure construction.

This past roadwork/infrastructure season was particularly busy, with many new road construction projects generated by the *American Recovery and Reinvestment Act (ARRA)*.

Roadwork Overtime Initiative

The CSHD conducted an overtime initiative from July 14, through September 30, 2009. The purpose was to increase our visibility during non-traditional working hours, perform additional inspections of high-hazard worksites, and focus extra resources on elements of the MIOSHA strategic plan.

Safety Officers and Safety Consultants concentrated on maintenance, demolition and construction of roadwork/infrastructure, bridge projects, airport runways and terminals, and associated hazards. Activities and training programs focused on specific work operations that create the greatest incidence of safety hazards, e.g., struck-by hazards, fall hazards, excavations, roadwork/traffic control, and overhead power lines.

Industrial Hygienists focused on specific work operations that created the greatest exposure to health hazards, e.g., silica, lead, noise, concrete cutting, bridge painting, loud machinery and equipment.

Inspection Results

The CSHD conducted 210 compliance inspections under the initiative. These inspections produced the following results:

- 60 percent of the inspections had violations.
- A total of 526 violations were issued:
 - 242 Serious violations,
 - 21 Repeat violations,
 - 4 Willful violations,
 - 259 Other-Than-Serious violations.
- \$250,025 in penalties were assessed.

The Consultation Education & Training (CET) Division activities under the overtime initiative included: 24 promotions, four interventions, and one initial survey.



New ARRA Inspection Initiative

By: Bob Pawlowski, CSHD Director

The *American Recovery and Reinvestment Act (ARRA)* has provided funding for much needed roadwork and infrastructure projects in Michigan. During Fiscal Year 2010 (October 1, 2009 – September 30, 2010), Construction Safety and Health Division (CSHD) compliance staff will inspect and track ARRA projects in Michigan.

The *ARRA Inspection List* is a list of roadwork and infrastructure projects that will be constructed with money under the ARRA. MIOSHA has until the end of FY 2010 to use resources allocated to inspect these projects. There are more than 300 projects on the current list, so inspections will be spread over this time period. Long-term projects may be inspected more than once at different phases of the project.

CSHD Safety Officers and Industrial Hygienists will focus on the same work operations detailed in the "Road Construction Overtime Initiative" article. All compliance staff are encouraged to contact each other or a supervisor, when they believe there may be worksite hazards that should be addressed by another staff's discipline.

FY 2009 ARRA Inspection Results

From July 1, through September 30, 2009, CSHD conducted 32 inspections directly related to ARRA-funded projects. These inspections resulted in the issuance 46 violations, including: 17 Serious, 26 Other-than-Serious, and three Repeat. Total penalties assessed for these violations were \$14,500.

Below are the violations most frequently cited during the ARRA inspections:

- CS Part 1, *General Rules*, no Accident Prevention Plan;
- CS Part 22, *Signals, Signs, Tags, & Barricades*, inadequate traffic control, improper signaling, inadequate traffic training;
- CS Part 10, *Lifting & Digging Equipment*, no annual crane inspections;
- CS Part 21, *Guarding of Walking & Working Areas*, improper temporary stairways, improper stairway guardrails.
- OH Part 430, *Right to Know/Hazard Communication*;
- OH Part 603, *Lead Exposure in Construction*; and
- OH Part 451, *Respiratory Protection*.



Steel Erection "De Minimis" Policy Changes

Federal OSHA recently rescinded their "de minimis" policies with respect to (1) fully planked or decked floors or nets, and (2) the use of pre-installed shear connectors during steel erection, as addressed in *OSHA Instruction CPL 2-1.34, Inspection Policies and Procedures for OSHA's Steel Erection Standard*, issued March 22, 2002.

MIOSHA did not create a "de minimis" policy relating to floors/nets and shear connectors in steel erection. However, MIOSHA has used the OSHA Compliance Directive for clarity and interpretation purposes since Subpart R (Part 26 in Michigan) has been in effect (2002).

MIOSHA agrees with the federal OSHA decision to rescind their "de minimis" policy and the CSHD will enforce applicable rules that address these issues in accordance with Part 26, *Steel Erection*.

For questions regarding these issues, please contact the CSHD or the CET Division.

ROOFER – CRUSHED BY FATALITY

In June of 2009, a 48-year-old roofer was on his knees marking a chalk line. Roofing material was being hoisted with a tower crane to the roof of a 13-story building. The roofing materials became dislodged and fell on the victim.

MIOSHA violations:

- Part 1, *General Rules*, Rule 114(1) – No procedures or training for hoisting materials.
- Part 8, *Material Handling*, Rule 832(1) – Rigging equipment was not inspected.
- Part 10, *Lifting and Digging Equipment*:
 - Rule 1025 (a) (12) – Employee not permitted under a suspended load.
 - Rule 1025(a) (16) – Suspended load not secured and balanced.
- Part 22, *Signals, Signs and Barricades*, Rule 2233(1) – No Danger Signs posted.

CASE SUMMARIES

LABORER – EXPLOSION FATALITY

In April of 2009, three laborers were decommissioning an underground gasoline storage tank with an abrasive wheel cutting saw. As the deceased made the fourth cut, the tank exploded.

MIOSHA violations:

- Act 154, *General Duty*, Rule 408.01011(a) – Work operation not in accordance with National Fire Protection Association requirements.
- Part 1, *General Rules*, Rule 114(2) – No procedure in place for tank decommissioning.
- Part 19, *Tools*, 1932(7) – Tools not designed for explosive atmospheres.
- Part 20, *Demolition*:
 - Rule 2031(1)(a) – No demolition survey.
 - Rule 2031(4) – No testing of atmosphere.

Award Window Cleaning Fined \$21,000 for Fatality

One of the most tragic events in the workplace occurs when an employee is killed or seriously injured on the job. While nothing can ever replace the loss of a life, MIOSHA is committed to do everything possible to prevent similar types of accidents.

MIOSHA concluded the investigation of Award Window Cleaning Services, Inc., of Grand Rapids, on October 8, 2009. The company received \$21,000 in proposed penalties for allegedly failing to adequately protect employees from fall hazards.

Accident Investigation

Award Window Cleaning Services specializes in high-rise commercial window cleaning services. On June 17, 2009, two employees began work at the Grand Rapids Art Museum, a 60 foot high facility.

The employees were washing the windows using boatswain chair scaffolding attached to a roof rigger system. The two employees worked together, however, each had a separate chair and rigger system. On this occasion, the lifelines were attached to the roof rigger unit instead of separate anchorage attachments on the roof.

The two window washers had completed one 60-foot drop and returned to the roof. They relocated their roof riggers to the next set of windows. As the deceased, Tyler Cotter, started over the edge, his roof rigger fell over the edge of the roof, dropping with him to the ground 60 feet below. Cotter was taken to the hospital where he was pronounced dead.

MIOSHA Citations

As a result of the accident investigation conducted by the General Industry Safety and Health Division from June 17, to July 19, 2009, the company received three Serious citations for alleged safety violations with total proposed penalties of \$21,000. They received the maximum penalty of \$7,000 for each violation.

The three Serious violations were:

- Did not require a visual inspection of the roof rigger and did not adequately supervise the use of roof rigging equipment;
- Inadequate training, employee assigned to clean windows for the first time was not shown location of roof anchors; and
- Inadequate tie off for the life line.

The company has appealed the citations.



When his roof rigger went over the roof edge, Award employee Tyler Cotter fell 60 feet to the ground below.

Adrian Rocskay, Ph.D., CIH
Director, General Industry
Safety & Health Division
517.322.1831

Tree Care Fatality Alert

By: Michael Brodzik, GISHD Safety Officer
 Kenneth Hines, GISHD Supervisor

A fatality at Sycamore Hills Golf Club prompted MIOSHA to issue a *Tree Care Fatality Alert* to help prevent fatalities in the tree care industry.

Fatality Investigation

Sycamore Hills Golf Club, in Macomb, is a 27-hole public golf course. On September 23, 2009, two employees were removing dead ash trees. One employee was a feller, and one was an observer. On the sixth tree, the feller made two separate cuts and retreated.

Interference with an adjacent tree caused the tree to snap and break at about the 35-foot mark. The top portion fell on an east/west axis. The remaining trunk fell to the north, striking the feller from behind, about 27 feet from the stump.

Summary of Violations

As a result of the fatality investigation conducted by the General Industry Safety and Health Division in September and October 2009, the company received 10 Serious citations for alleged safety violations with total proposed penalties of \$23,010.

Some of the Serious violations of GI Standard Part 53, *Tree Trimming and Removal*, included:

- inadequate plan for path of retreat for manually felled tree,
- excessive under cut and back cut, no training before starting assigned job,
- not conducting job briefing involving tree with unusual hazards, and
- not using means to control the fall of a tree falling the wrong way.

Preventing Tree Trimming Fatalities

During the winter months, many companies perform tree trimming and removal operations. Dead and diseased trees are especially hazardous as they can break and fall in unpredictable directions.

To prevent injuries and fatalities, employers must train each new employee regarding the hazards of tree trimming and removal, the safeguards to prevent injury and death, and the requirements of Part 53.

Prevention information is available on our website at www.michigan.gov/miosha, in the "Initiatives" section.



A Sycamore Hills Golf Club worker was killed when he was hit in the back by this incorrectly felled tree.

General Industry Standards Interpretations

Are consumer products covered by Parts 92/430, the *Hazard Communication Standard (HCS)*?

Occupational exposure to consumer products is addressed under the HCS when employee use results in exposures to the chemical(s) in the consumer product that are more frequent and of a longer duration than would be expected from normal consumer use.

The performance-oriented nature of the HCS makes it difficult to draw clear, exacting lines for the number of times a consumer product can be used in a workplace before the provisions of the rule apply. Where an employer is uncertain whether or not the duration and frequency of exposure to these products is comparable to that of a consumer, material safety data sheets (MSDSs) should be obtained and made available to employees.

To exempt a product from the HCS, employers must be able to demonstrate that an employee is using the product, such as sink cleanser, with the same frequency and duration of use as would be expected at home. If the employee uses cleanser all day or a large portion of the day, then an MSDS plus information and training on that product must be provided to the employee. To obtain copies of MIOSHA standards, visit our website at www.michigan.gov/mioshastandards.

CASE SUMMARIES

LINE SUPERVISOR – ELECTROCUTED

In November 2008, an employee was electrocuted while changing a fuse on a transformer. The employee suffered severe injuries resulting in death.

MIOSHA violations:

- Part 86, *Electric Power Generation, Transmission, and Distribution*:
 - Rule 1910.269(1)(1)(i)(c) – Employee working alone while performing repair of transformer.
 - Rule 1910.269(1)(7) – No protective gloves being used when exposed to electrical current over 600-volts, electrical distribution pole and transformer.
- Part 11, *Recordkeeping* – No fatality report within eight hours.

MAINTENANCE WORKER – CAUGHT BETWEEN

In May 2009, an employee was caught between a coke oven door and the building structure when the door shifted during maintenance activities causing severe injuries resulting in death.

MIOSHA violations (not inclusive):

- Part 1, *General Provisions*, Rule 34(12) – A secondary support system was not used while employees worked under a suspended 1,863 pound door.
- Part 38, *Hand and Portable Powered Tools*, Rule 3845(1) – A hoist with a capacity of ¾ ton failed while it was being used to suspend a 1,863 pound door and related equipment.
- Part 85, *The Control of Hazardous Energy Sources*, Rule 1910.147(c)(4)(i) – Inadequate lockout procedures.

**Connie O'Neill, Director
Consultation Education &
Training (CET) Division
517.322.1809**

Best Practice: Fall Protection at Marathon's Detroit Refinery

By: Doug Kimmel, MVPP Program Specialist

Marathon Oil Corporation's Detroit Michigan Refining Division is one of the newest Michigan Voluntary Protection Program (MVPP) sites, which are recognized by MIOSHA for workplace safety and health excellence.

Planning for Improvement

Marathon's Detroit refinery has created a culture that embraces the idea that fall protection is much more than just a harness and a lanyard. They started with a plant-wide assessment of fall hazards, which provided the facility with enough information to establish a long-term plan for improvement.

Once that plan was in place, work was prioritized using a risk-ranking system. This allowed engineers to more effectively concentrate their efforts on situations with higher potential hazards associated with falls.

A diverse team of representatives from the refinery's safety, engineering, operations and maintenance organizations were convened as a "fall protection committee," charged with carrying out the initiative and ensuring its success.

Providing "State-of-the-Art" PPE

In instances where hazardous situations cannot be corrected using engi-

neering controls, personal protective equipment (PPE) was determined to be the best short-term solution. For that reason, the refinery provides all employees with "state-of-the-art" personal fall arrest equipment such as harnesses, lanyards, self-retracting lanyards and rescue straps.

Supplementing the personal safety equipment are additional safety devices including aerial lift platforms, specialized portable systems (rolling platforms), and scaffolding, and ongoing safety planning to make certain employees are protected from falls.

To learn more about the fall protection program at Marathon, contact **Todd Habets, HSES Coordinator** at tlhabets@marathonoil.com.



Employees at Marathon's Detroit Refinery are provided with "state-of-the-art" fall arrest equipment.

New Titles in the CET DVD/Video Library

The CET Division DVD/Video Library has more than 300 titles available on a free-loan basis. We recently purchased more than 40 new titles, including:

- Biological Threats in Healthcare: Identify & Respond,
- Indoor Cranes: Safe Lifting Operations,
- Machine Guarding: Safeguard Your Future,
- Elevated Work Platform Safety,
- Safety Leadership for Everyone,
- Every Time I Look at My Hand,

- Working Safely on Suspended Scaffolding,
- Safe Operation of Scissor & Boom Lifts,
- Back Injury Prevention: You're in Control,
- Electrical Safety: NFPA 70E,
- Hazard Communication: Behind the Scenes,
- Safe Behavior - No Regrets,
- Rolling Towers: Mobile Scaffold Safety.

The video catalog is online at www.michigan.gov/mioshavidéos.

MIOSHA News Quiz

Topic: Part 6, Fire Exits

The quiz is written by MIOSHA safety and health professionals and topics cover a wide range of safety and health issues. The quiz is available at www.michigan.gov/mioshanewsquiz.

MIOSHA Awards

11/17/09 – Arnold Center, Inc. Midland & Gladwin Manufacturing Facilities – SHARP Award. The Arnold Center is committed to safety and has a strategic planning process that looks at the risk analysis of all operations and establishes safety goals. Since 1967, they have been a provider of vocational and other training.



12/14/09 – U.S. Gypsum Company River Rouge Plant – Platinum Award. The River Rouge plant has gone more than eight years without a lost time accident! Employee safety is a top corporate core value at U.S. Gypsum. The River Rouge plant employs 80 workers and produces DUROCK™ cement board.



Employer Honor Roll

07/21/09–TWB Company, Monroe–CET Silver Award

11/16/09–Country Fresh, Grand Rapids–Ergonomic Innovation Award

11/16/09–Country Fresh Garage, Grand Rapids–CET Platinum Award

11/20/09–Grand Blanc Processing, Holly–CET Bronze Award

11/30/09–International Paper, Sturgis–CET Gold Award

The press releases for all MIOSHA Awards are available on the MIOSHA News website at www.michigan.gov/mioshanews.

The CET Division recognizes the safety achievements of Michigan employers and employees through various awards, based on excellent safety and health performance. For more information, visit our website at www.michigan.gov/miosha or call the CET Division.

Extreme Safety For Teen Workers

By: Sherry Scott, CET Division Supervisor



While work provides numerous benefits for young people, it can also be dangerous. MIOSHA's goal is that no teens will die on the job in Michigan.

This initiative was launched to provide information to help keep young workers safe and healthy on the job. MIOSHA is continuing to provide health and safety education as an important component of injury prevention for working teens.

Important Health & Safety Skills

The "Extreme Safety" initiative provides teen workers, parents, educators, career placement organizations, and employers with the necessary health and safety information and skills young workers need to work safely on the job.

The "Extreme Safety" information emphasizes how to:

- Recognize hazards in the workplace,
- Follow safety rules and instructions,
- Report safety and health hazards immediately,
- Ask questions when uncertain of how to complete a task,
- Know what to do in an emergency,
- Know your worker rights and responsibilities.

If you have young workers at your facility, consider using some of the materials on our website at www.michigan.gov/miosha (scroll down to "Initiatives"). There are safety fact sheets on the common industries where teens work: landscape and horticulture, construction, restaurant/fast food, and retail.

Other "Extreme Safety" materials include: a bookmark, a brochure on rights and responsibilities, a poster, and a PowerPoint program. Let's work together to help reduce young worker injuries and illnesses. For more information, contact the CET Division at 517.322.1809.

Ask MIOSHA

Question: Is there a maximum amount of weight that an employee can be required to lift?

Answer: There are no MIOSHA/OSHA standards that limit the weight that an employee can lift.

Although there is no maximum weight limit that employees are allowed to lift, one of the tools used to determine the extent of a lifting hazard is the National Institute of Occupational Safety and Health (NIOSH) lifting equation which is designed to evaluate various kinds of two handed manual lifting tasks.

This equation is used to calculate the Recommended Weight Limit (RWL) which is the weight of the load that nearly all healthy workers could perform in a specific set of task conditions over a substantial period of time without an increased risk of developing lifting-related low back pain.

There are several conditions, if present during a lift, that would make the use of the NIOSH lifting equation inappropriate to use to determine the RWL. Some of the conditions that would make the lifting equation inappropriate to use include one handed lifts, lifting while seated or kneeling, lifting while carrying, pushing or pulling.

In essence, the NIOSH lifting equation begins at 51 pounds (23 kg) and conditions involved with the lift will lower the RWL.

The factors accounted for in the NIOSH lifting equation include:

- the horizontal location of the load,
- the vertical location of the load,
- the vertical travel distance involved with the lift, and
- the frequency of the lift.

Although the NIOSH lifting equation begins at 51 pounds, again that is not considered to be the maximum weight an employee can lift. Under optimal conditions such as a low frequency of lifts, good coupling, and good posture a greater amount of weight can be safely lifted.

MIOSHA may use the General Duty Clause to address serious lifting hazards in a workplace on a case-by-case basis.

Additional Resources

www.osha.gov: Ergonomic Web Page

www.niosh.gov: Applications Manual for the Revised NIOSH Lifting Equation

www.michigan.gov/askmiosha

Variations

Variations from MIOSHA standards must be made available to the public in accordance with Part 12, Variations (R408.22201 to 408.22251). MIOSHA variations are published in the MIOSHA News website: www.michigan.gov/mioshavariations

Dawn C. M. Jack, Director Appeals Division 517.322.1297

The MIOSHA Appeals Division oversees the settlement of cases where citation(s) have been issued.

**John Peck, Director
Management & Technical
Services Division
517.322.1851**

Standards Update

Status of Michigan Standards Promulgation

General Industry Safety Standards Commission

■ GI Part 17, *Refuse Packer Units*, the commission approved revisions to gates on stationary barriers. A public hearing will be scheduled.

■ GI Part 33, *Personal Protective Equipment*, the commission approved revisions to disposable gloves. A public hearing will be scheduled.

■ GI Part 62, *Plastic Molding*, an advisory committee will be appointed to update this standard.

■ GI Part 69, *Compressed Gases, Acetylene, Hydrogen, Oxygen, Nitrous Oxide*, adopting Federal OSHA CFR 1910.102 Acetylene by reference.

■ GI Part 74, *Fire Fighting*, an advisory committee was appointed to update this standard.

Construction Safety Standards Commission

■ CS Part 1, *General Rules*, the commission approved revisions regarding sanitation. A public hearing will be scheduled.

■ CS Part 2, *Masonry Wall Bracing*, proposed revisions sent to the Joint Committee on Administrative Rules.

■ CS Part 10, *Lifting and Digging Equipment*, the commission approved revisions for crane certifications. A public hearing will be scheduled.

■ CS Part 12, *Scaffolds and Scaffold Platforms*, an advisory committee reported their recommendations on December 2 and the commission approved revisions that update the rule. A public hearing will be scheduled.

Occupational Health Standards Commission

■ OH Part 301, *Air Contaminants in General Industry*, and OH Part 601, *Air Contaminants in Construction*, the commission reviewed comments from the September 30 public hearing.

■ OH Part 316, *Diisocyanates*, the commission reviewed comments from the September 30 public hearing.

■ OH Part 554, *Bloodborne Infectious Diseases*, and OH Part 433, *Personal Protective Equipment*, the commission approved revisions to disposable gloves. A public hearing will be scheduled.

Joint Standards

■ *Ergonomics*, MIOSHA continues to work on the Regulatory Impact Statement (RIS) for the proposed standard.

GI Part 69, Compressed Gases – Revised Acetylene Rule

Federal OSHA revised their Acetylene Standard by replacing references to outdated consensus standards with updated references reflecting current industry practices in the acetylene industry.

The revised standard requires employers ensure in-plant transfer, handling, storage and use of acetylene cylinders comply with *Compressed Gas Association Pamphlet G-1-2003, Acetylene*. Piping systems, as well as facilities and equipment, used to generate acetylene or to fill acetylene cylinders are required to comply with *National Fire Protection Standard NFPA 51A, Standard for Acetylene Charging Plants*.

OSHA published the direct final rule on August 11, 2009, and the effective date is November 9, 2009. MIOSHA will be adopting the changes by reference.



Dawn C. M. Jack – New Appeals Director

Dawn C. M. Jack was recently appointed the new Director of the MIOSHA Appeals Division. Dawn comes to MIOSHA from the Michigan Office of the Attorney General where she has worked for four years as an attorney in the public employment and corrections areas.

Prior to joining the Attorney General's staff, Ms. Jack was an assistant prosecuting attorney with the Wayne County Prosecuting Attorney's Office. Dawn has extensive knowledge of administrative, civil and criminal law. She served on a team to represent the state of Michigan in significant cases including jury trials.

Dawn earned a Juris Doctorate from Michigan State University-Detroit College of Law. She also attended Washburn University School of Law, Topeka, Kansas. She holds a B.S. in Child and Family Services, Family Services Concentration from Iowa State University.

Dawn describes herself as someone who likes working collaboratively with others and being part of a team, which makes her a great fit for MIOSHA. She is looking forward to joining the MIOSHA program and working to ensure the safety and health of Michigan workers!

Level Two Seminar: Effective Safety and Health Training

By: Micshall Patrick, CET Senior Safety Consultant

The MIOSHA Training Institute (MTI) is offering a new one-day course called *"Effective Safety and Health Training."* This course is part of the *Level Two Management Certification* program.

More than 100 MIOSHA standards include a requirement to train employees prior to their being assigned to work with equipment or to their possible exposure to a general industry, construction or occupational health hazard. This course is designed to provide instruction to ensure the content of the training and the instructor is effective.

Below are the key learning objectives for this course:

- Explain the value of safety and health training. Determine who needs to be trained as well as the content of the training program. Based on MIO-SHA standards, determine what types of training are required. Determine who needs to be trained within an organization and complete a training matrix.

- Design engaging instruction targeted to the learners' needs. Discuss the characteristics of adult learners. Determine the overall flow of the training. Explain how different activities and challenges keep students engaged. Develop observable and measurable objectives for a training course.

- Explain the requirements to ensure the training is successful. Encourage participants to discuss the characteristics of an effective trainer. Determine an appropriate way to validate the knowledge and skill of their workforce.

Creating Successful Training

Effective training is a key factor in reducing accidents and improving productivity. This course provides suggestions and ideas for creating and conducting successful workplace training sessions.

Strategies that work best for adult learners are discussed and "hands-on" activities provide an opportunity to practice the skills discussed.

This program is a must for anyone concerned about safety and health training, including:

- Those responsible for conducting employee health and safety training.

- Managers concerned about liability and workers' compensation costs.

- Employees with safety and health responsibilities who want to learn effective techniques to ensure they remain safe and healthy at work.

- Employers who want to ensure workers receive effective safety and health training.

At a recent *"Effective Safety and Health Training"* course, the following comments were received on the course evaluations:

- "Well done."

- "Interactive exercises for discussing the standards were good in relating to others in the class."

- "The public speaking exercise was fun, and of benefit for the trainers who have to practice speaking in front of a group."

MTI website: www.michigan.gov/mti



Director: Douglas J. Kalinowski
Deputy Director: Martha B. Yoder
Editor: Judith M. Shane

MIOSHA Hotline: 800.866.4674
Fatality Hotline: 800.858.0397
General Information: 517.322.1817
Website: www.michigan.gov/miosha

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Website: www.michigan.gov/deleg

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