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Accidents Have Causes: They Can Be Prevented

By: Nella Davis-Ray,
CET Division Acting Director

No one wants an accident to happen at their workplace. A debilitating injury or the death of an employee is tragic. Every life is precious and irreplaceable.

The costs of reacting to workplace injuries and illnesses far exceed the costs of preventing them from happening in the first place.

Liberty Mutual Insurance Company estimated the direct costs of workplace accidents at **\$48.6 billion** nationwide for 2006. Direct costs include: payment to workers, work-comp payments, medical expenses, and legal services.

Businesses paid an additional **\$127 billion to \$212 billion of indirect costs** in 2006. Indirect costs include: replacement workers, damaged property, delays/lost productivity, low employee morale, increased absenteeism, and poor customer/community relations.

Worksite Analysis

There are reasons why accidents happen. Something went wrong somewhere. It takes some thought, analysis and maybe the help of other trained people, to figure out what went wrong. Once you know why an accident happened, it is possible to prevent future accidents.



CET Consultant Bob Dayringer (left) conducts a hazard survey with Jennifer Ewing at Alcotec Wire Corporation's Traverse City facility, an MSHARP company.

Rather than waiting for an accident, it's a much better practice to be proactive. Before any organization can effectively implement hazard prevention controls, a thorough understanding of the hazards must be explored. Recommendations for a comprehensive approach to worksite analysis include:

- Analyze your current injuries and illnesses and determine the root causes that created the situation.

- Conduct a baseline comprehensive hazard identification survey.

- Adopt a change management process that includes methods to identify and take appropriate steps to prevent and control potential risks.

- Use job safety analysis to conduct more extensive reviews to determine hazards and solutions.

- Conduct safety and health inspections on a regular basis.

- Implement an accident reporting system and investigations of incidents and near-misses.

Motions, positions and actions near equipment can result in injuries. It is more likely for injuries to occur when employees must reach over moving equipment or objects. Reaching beyond the range of clear vision is also a dangerous practice. Problems around equipment and machinery may also develop at points of operation or around flywheels, gears, shafts, pulleys, belts, sprocket chains and other moving parts.

Self-Inspection Program

A good place to start implementing a self-inspection program is to use a checklist of common potential hazards. As you continue implementation, you can customize the checklist to fit your work operations.

In the sidebar there are some sample questions about machines and equipment from the *MIOSHA Self-Inspection Checklist* that may help you assess potential hazards. This list is by no means complete because

each worksite has its own unique requirements and conditions. A self-inspection checklist is a tool to help you in your analysis, not a definitive statement of what is required.

It's a good practice to involve your employees in the process. They have a unique understanding of their job that's invaluable for identifying hazards. Employees may be aware of near misses. Involving employees helps ensure a quality survey, and gets "buy in" to the solutions. Brainstorm with them for ideas to eliminate or control the hazards.

For a self-inspection hazard survey to be effective, management must show a commitment to follow through to correct identified hazards. Without follow through, management loses credibility and employees will be reluctant to share their safety and health concerns.

CET Assistance

If you would like assistance from MIOSHA in getting started, the CET Division is available to conduct hazard surveys of an employer's site. These surveys serve as a training tool by providing an opportunity to learn how to identify unsafe or unhealthy acts or conditions with a MIOSHA professional.

Together, you and the consultant will examine conditions in your workplace, review applicable standards, and best practices. Employee participation in the walkthrough with MIOSHA is strongly encouraged.

Another option is to attend MIOSHA Training Institute (MTI) seminars. On June 8, 2011, the MTI is offering a one-day seminar, "*How to Conduct a Workplace Inspection.*" The course will provide information, tools, and skills needed to observe and eliminate workplace hazards relative to specific MIOSHA standards.

For help to proactively address your workplace hazards, contact the CET Division at 517.322.1809 or online at www.michigan.gov/cet.

Self-Inspection Checklist

The *MIOSHA Self-Inspection Checklist* is available on our website and provides basic information on conducting a hazard survey in the workplace.

Topic Areas

- Electrical Wiring, Fixtures and Controls,
- Exits and Access,
- Fire Protection,
- Housekeeping and General Work Environment,
- Machines and Equipment,
- Materials,
- Welding and Cutting,
- Personal Protective Equipment.

Machines and Equipment (sample questions)

- Are all machines or operations that expose operators or other employees to rotating parts, pinch points or particles, or sparks, adequately guarded?

- Are mechanical power transmission components: belts, pinch points, and nip points guarded?

- Is exposed power shafting less than 7 feet from the floor guarded?

- Are hand tools and other equipment regularly inspected for safe condition?

- Is compressed air used for cleaning less than 30 psi (hand held safety nozzle)?

- Are welding cylinders stored so they are not subjected to damage?

- Are actuating controls guarded against accidental actuation?

- Are guards securely fastened or interlocked?



Working to Create Michigan's Future Today



Doug Kalinowski, CIH
Director

The Buck Stops (And Starts) Here

Over the last several years, we have seen notable improvements in worker safety across the state because so many employers and organizations have taken the lead in continuous improvement in their workplaces.

The development and improvement in a positive workplace culture must start with the business, labor and organizational leaders in Michigan. These leaders must show their employees and members, the "Buck" stops (and starts) here!

"Since we maintain that safety is our highest core value, it requires us to remain vigilant in keeping the focus squarely on safety."

Walbridge CEO John Rakolta

These leaders walk the talk. They know that providing a safe and healthy work environment is the right thing to do and it's a sound business decision – especially in today's challenging economic times. I'd like to share just a few examples.

MVPP Stars

I met **David Yacavone**, President, **Johnson Technology Inc.** nearly 10 years ago when their Muskegon manufacturing facility received the Michigan Voluntary Protection Program (MVPP) Star Award for workplace safety and health excellence.

As the President of Johnson Technology, a key aerospace supplier, he of course is concerned about productivity, quality and profit. He was quite clear in his remarks during the award ceremony that you can't separate a positive culture in these three areas from worker safety.

Mr. Yacavone was also quite adamant that the "Buck" stops and starts with him at Johnson Technologies! Although he takes a relatively humble approach to what he does, he is truly a leader in creating more quality jobs and safe jobs in Michigan.

Walbridge, a world-class leader in the construction industry, received the first MVPP for Construction Star Award last September.

Walbridge Chairman and CEO **John Rakolta**, said during their award ceremony, "Since we maintain that safety is our highest core value, it requires us to remain vigilant in keeping the focus squarely on safety."

Outstanding Partners

Barton Malow Company currently has three active partnerships with the MIOSHA program. Barton Malow CEO and Chairman **Ben Maibach III** said at a partnership signing, "Working cooperatively with our fellow project team members, I am confident our team will achieve better results through our commitment to working safely and protecting each other on the project."

The **Michigan Building and Construction Trades Council**, has participated in every MIOSHA partnership signing. Secretary-Treasurer **Patrick Devlin**, said at a recent signing, "There is no better way that we can improve the on-the-job health of the state's construction workers

than making these kinds of sustained commitments to safety."

For nearly 10 years, MIOSHA has had a working partnership with **Ford Motor Company** and the **United Automobile Workers of America (UAW)** to improve worker safety and the results have been remarkable. It took the vision, trust and accountability of many people to begin this process.

It's continued through the leadership of **Jim Tetreault**, Ford Vice President, North America Manufacturing; **Harry Tarrant**, Ford Safety and Security Manager, North America Manufacturing; **Jimmy Settles Jr.**, UAW Vice President; and **Donald Hunter**, UAW Assistant Director, UAW-Ford NJCHS.

Making a Difference

Whether it's developing advanced battery storage manufacturing, building and operating wind turbine facilities, designing and building the cars of the future, or designing and building LEED facilities across the state, MIOSHA strongly believes that the successful future of this state will be based on working together to create good and safe jobs where businesses and workers can be successful. We look forward to "Making a Difference" together.

Testing our Culture

Every organization has a way of doing business. It's the norm... the culture. And, it is up to leaders in every organization to use practices that transform the workplace by moving values into actions, and support them by systems that reinforce the culture.

This is tough to do in the best of times – when things are going smoothly or when no major changes are on the horizon. Try throwing in a huge challenge and the dynamics become even more of an "opportunity" for leaders!

As you read in the last MIOSHA News, we recently said good-bye to 32 of our valued staff (15 percent) as a result of retirements. The retirements came from every level and division.

We are in the midst of dramatic change. Like it or not. Want it or not! Here we are at a cross-road that will challenge us and push us.

Ensuring Exceptional Service

We have some experience at this from the last early retirement loss of 34 staff at MIOSHA. There is no doubt we will not only weather the storm, but emerge as a better government agency. Right now, we are busy replacing staff as allowed, training people for new jobs, asking remaining staff to "step up" and take on additional responsibilities, and revisiting all aspects of what we do.

One constant in all this change is that people everywhere want to do a good job. People take pride in what they do and strive to do the best job possible. **Dr. Stephen Covey** points this out. He says that if you don't believe this is so, just try throwing someone's work out the window and see how they react! They will definitely react!

As leaders, we must remember that those who work for us are only as good as the workplace we provide for them. It is our responsibility to create work environments that are designed for success. In The Leadership Challenge authors **James Kouzes** and **Barry Posner**, identify opportunities for leaders to make a difference including:



MIOSHA new employee orientation February 2011.



Martha Yoder
Deputy Director

- Provide direction and support during uncertain times.

- Fully utilize the talents of colleagues.

- Set a positive example of what honesty and ethics mean.

- Create extraordinary value for customers.

Right now at MIOSHA, our systems are being tested. Although we are short staffed and are challenged, we will ensure timely responses to legal mandates, implement needed outreach program to address new requirements, and ensure that new employees receive timely and proper orientation.

This is good. It helps us learn in "real time" how to walk the leadership talk that is expected of all employers – to create, develop, and implement systems that will endure and work, even when dynamic change happens.

It is so amazing to see this in action. An organizational development course from my college days used **Peter Senge's** book, The Fifth Discipline. At the time, Senge's ideas seemed very different from the workplaces that we had seen. The book promoted "systems thinking," or the practice of seeing the whole rather than the individual components or parts.

Our Commitment is Unchanged

At MIOSHA we are in the midst of reviewing our systems to see what works and where improvements can be made. However, our goal of creating collective ownership for workplace safety and health among MIOSHA, employers, and employees remains unchanged. We will work with all employers and employees who ask for help. We will never stop being diligent

about providing information, help and assistance needed to create and maintain safe and healthful work areas.

Thank you for continuing to work with us and for your safety and health diligence in creating a culture in Michigan that results in safe and healthy jobs.

Global Settlement with Davenport Masonry for Workplace Fatality

By: Dawn Jack, Appeals Division Director

Earlier this year, MIOSHA, the Michigan Attorney General, and Davenport Masonry Inc. successfully negotiated a global settlement agreement resolving safety violations and criminal charges. The safety violations and criminal charges stemmed from the tragic death of Davenport Masonry employee, Leo Felty, Jr.

MIOSHA Investigation

In February 2008, 32-year-old Felty fell from scaffolding while working on the \$42 million addition to the University of Michigan's Museum of Art in Ann Arbor. He was nearly 40 feet from the ground when he stepped backwards off of his scaffold while performing wall repairs with a coworker. According to MIOSHA standards, the scaffold should have had a guardrail installed on all open sides and been fully planked.

The MIOSHA fatality investigation revealed a history of safety violations issued by MIOSHA against Davenport Masonry. MIOSHA cited Davenport Masonry for four separate violations of construction safety standards, totaling \$61,600 in fines. Three of those were classified as Willful violations, the most serious form of citations.

Attorney General Charges

The issuance of a Willful citation in connection with a fatality requires referral to the Michigan Attorney General's Office for possible issuance of criminal charges. In April 2010, Michigan Attorney General Mike Cox charged Davenport Masonry, Inc. with *Violation of the Michigan Occupational Safety and Health Act Causing Employee Death*. Under the MIOSH Act, an employer found guilty of such a charge shall be convicted of a felony and fined up to \$10,000 and/or imprisoned for up to one year.

This past December, after consultation by the Attorney General's Office with the family of Mr. Felty, the parties worked cooperatively and reached an agreement to resolve the criminal charges and MIOSHA citations. Under the terms of the agreement, Davenport Masonry must implement an enhanced scaffold safety program to improve the protections provided to its employees.

Scaffold Safety Program

The enhanced scaffold safety program includes:

- Continued scaffolding safety education every six months for employees whose jobs involve the use or assembly of scaffolding;
- Testing employees' understanding of the content of the scaffolding safety training program and making testing results available to MIOSHA upon request;
- Maintaining documentary evidence reflecting the identity of employees who've attended the scaffolding safety training programs and making such evidence available to MIOSHA upon request;
- Providing MIOSHA access to review any written materials generated concerning scaffolding safety which are distributed to its employees;
- Daily inspection by the site supervisor or designated competent person of all scaffolding used that rises more than 10 feet off the ground to ensure it has been properly erected;
- Maintaining written records confirming inspections of any scaffolding it has moved or erected and making such records available to MIOSHA upon request; and
- Furnishing to MIOSHA, upon request, a list of all locations in which it is utilizing scaffolding at heights above 10 feet and affording MIOSHA access to such sites.



Davenport Masonry employee Leo Felty Jr. fell from this scaffolding while working on the addition to the University of Michigan's Museum of Art in Ann Arbor.

Global Agreement

As part of the agreement, Davenport Masonry also agreed to accept a single citation, consolidating the four construction safety violations originally issued, with a classification reduction from Willful to Serious. Davenport Masonry further agreed to pay \$10,000 in fines to MIOSHA and an additional \$78,000 into accounts established in the names of Felty's three minor children.

Under the agreement, the criminal case against Davenport Masonry before the Washtenaw Circuit Court has been placed under diversion for one year beginning December 15, 2010. If at the conclusion of the one year diversion period Davenport Masonry has not been cited by MIOSHA for willfully violating any Construction Safety Standard, or violating MIOSHA Rules 408.41213(1) or 408.41217(1) pertaining to scaffolding safety, the Michigan Attorney General and Davenport Masonry may jointly move for a dismissal of the criminal case.

Safe Patient/Resident Lifting Programs

Hospitals and nursing homes continue to have higher injury and illness rates than most industries. For this reason hospitals and nursing homes have been added as targeted industries to MIOSHA's Strategic Plan for years 2009 – 2013.

Healthcare workers suffer a disproportionate amount of work-related musculoskeletal disorders (MSD) resulting from the manually lifting, transferring, and repositioning patients. Lifting patients exposes nursing home, hospital, and home healthcare employees to compressive forces above the upper limits recommended by NIOSH guidelines.

Hospital/Nursing Home Hazards

Providing care to hospital patients and nursing home residents is physically demanding work. Nursing home residents often require assistance to walk, bathe, or perform other normal daily activities. In some cases residents are totally dependent upon caregivers for mobility. Manual lifting and other tasks involving the repositioning of patients/residents are associated with an increased risk of pain and injury to caregivers, particularly to the back.

These tasks can entail high physical demands due to the large amount of weight involved, awkward postures that may result from leaning over a

bed or working in a confined area, shifting of weight that may occur if a patient/resident loses balance or strength while moving, and many other factors.

The risk factors that workers in hospitals and nursing homes face include:

- Force – the amount of physical effort required to perform a task (such as heavy lifting) or to maintain control of equipment or tools;
- Repetition – performing the same motion or series of motions continually or frequently; and
- Awkward postures – assuming positions that place stress on the body, such as reaching above shoulder height, kneeling, squatting, leaning over a bed, or twisting the torso while lifting.

Safe Lifting Programs

Hospitals and nursing homes that have implemented injury prevention efforts focusing on patient/resident lifting and repositioning methods have achieved considerable success in reducing work-related injuries and associated workers' compensation costs.

Providing a safer and more comfortable work environment has also resulted in additional benefits for some facilities, including reduced staff turnover and

associated training and administrative costs, reduced absenteeism, increased productivity, improved employee morale, and increased resident comfort.

While specific measures may differ from site to site, OSHA recommends that: Manual lifting of residents be minimized in all cases and eliminated when feasible. They also recommend that employers implement an effective ergonomics process that:

- Provides management support;
- Involves employees;
- Identifies problems;
- Implements solutions;
- Addresses reports of injuries;
- Provides training; and
- Evaluates ergonomics efforts.

These guidelines are advisory in nature and informational in content. They are **not** a new standard or regulation and **do not** create any new OSHA duties. More information on safe patient/resident lifting is available from the federal Occupational Safety and Health Administration (OSHA) at www.osha.gov, and the National Institute for Occupational Safety and Health (NIOSH) at www.niosh.gov.

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Residential Construction Revised Fall Protection Rules

By: Brian Gronda, CSHD Supervisor

The number one cause of death and serious injury at residential construction sites is falls by employees working high above the ground on roofs, ladders and scaffolding.

Revised Criteria – Effective 06/16/11

In response, MIOSHA has revised the instruction which allowed residential builders to use specified alternative fall protection methods such as slide guards or safety monitoring systems rather than the conventional fall protection systems.

The revised instruction, *COM 04-1R1 Residential Fall Protection Criteria*, requires employees working six feet or more above a lower level to use guardrails, safety nets, or a personal fall arrest system. A personal fall arrest system includes a full body harness, deceleration device, lanyard, and anchor point; and must be rigged to prevent a worker from reaching the lower level/ground. Fall positioning or restraint devices may also be used, but must be rigged to prevent an employee from reaching the fall hazard and falling over the edge.

The definition of “residential construction” was also revised and is now defined as construction work that satisfies these two elements: (1) the end-use of the structure must be as a home; and (2) the structure must be constructed using traditional wood frame construction materials and methods.

Site-Specific Plan

In cases where a residential employer can establish that using conventional fall protection is infeasible or would pose a greater hazard, the employer can have a qualified person implement a written, site-specific fall protection plan that meets the requirements of Part 45, *Fall Protection*, and is available at the worksite. The use of warning lines and safety monitoring systems during the performance of roofing work are allowed for low sloped roofs as prescribed in 1092.501(b)(10).

MIOSHA and the Michigan Association of Home Builders are scheduling seminars. Please see our website for details.



Detroit Water and Sewerage Fined for Unsafe Excavation

By: Patricia Meyer, Director

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.

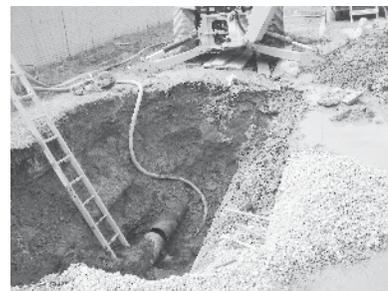
MIOSHA Inspection

On September 8, 2010, CSHD conducted an inspection of the Detroit Water and Sewerage Department (DWSD) during a water main repair on Huber Avenue in Detroit. Four employees were working on a water main break. They were exposed to serious hazards by working in an excavation 7 feet deep, 17 feet long, and 10 feet wide, with approximately vertical sides.

No trench box or shoring system was in place or available on the jobsite to protect the employees from a possible cave in. Water was flowing into the excavation, fissures were visible inside and outside the excavation, and the sides of the excavation were sloughing off. The foreman allowed work to continue with employees exposed to serious hazards.

The DWSD has been inspected 43 times in the past 10 years, with 27 safety inspections and 16

health inspections. The company is well aware of the MIOSHA excavation requirements and the other standards that cover their work environment.



Detroit Water and Sewerage Department's Huber Avenue excavation.

MIOSHA Violations

A total of 14 alleged violations were identified as a result of this inspection: one Willful Serious violation, one Repeat Serious violation, seven Serious violations, one Repeat Other-than-Serious violation, and four Other-than-Serious violations, with a total proposed penalty of \$110,400.

Part 9 – Violations

- Rule 941 (1) – Excavation not shored properly;
- Rule 932 (5) – No inspection by a qualified person;
- Rule 932 (3) – Water accumulation in excavation;
- Rule 933 (1) – Roadway not removed or supported;
- Rule 933 (2) – Spoils within two feet of edge;
- Rule 933 (5) – No ladder in excavation;
- Rule 934 – No air monitoring.

The company has appealed the citations.



Patty Meyer – New CSHD Director

Patty Meyer was recently appointed the new Director of the Construction Safety and Health Division (CSHD). Meyer has 20 years experience with the MIOSHA program, all focused on construction safety including safety officer, safety consultant, senior safety officer, supervisor, and manager.

She has more than 10 years of experience in management and supervisory positions in CSHD. Meyer has led and participated in numerous health and safety work groups within the agency to draft agency-wide policy, guidance and directives for use in safety and health enforcement. Meyer has been a strong proponent for MIOSHA partnerships in the construction industry. She enjoys working with employers, employees, associations, and companies to improve their safety and health culture to reduce injuries and illnesses.

Meyer completed a four-year electrical apprenticeship program through the International Brotherhood of Electrical Workers (IBEW) Local 58 in Detroit and is currently a licensed journeyman electrician.

“I am dedicated to MIOSHA’s mission of protecting employee safety and health and working with employers to improve their safety and health programs,” said Meyer.

LABORER – CAVE-IN

In September 2010, a 58-year-old laborer died when the side of an excavation collapsed onto him while he was installing a sewer pipe. The excavation was 20-22 feet long and 6-7 feet deep with the sides cut to an 80 degree angle. The soil consisted of clay, sand and stones; with veins of fine sand. The excavation had only been open for approximately 25 minutes before it collapsed.

MIOSHA violations (not inclusive):

- Part 9, *Excavation, Trenching, and Shoring*:
 - Rule 932(5) – No qualified person.
 - Rule 941(1) – Excavation was not properly sloped or shored.
- Part 1, *General Rules*, Rule 114(1) – Accident prevention program not coordinated with employees.

CASE SUMMARIES

CARPENTER – FALL

In November 2010, a 54-year-old carpenter was performing restoration work and repairing a second story window at a residence while working from a 20-foot extension ladder. The victim fell from an undetermined height onto a concrete driveway. He was found lying in the driveway with nails in his hand and a hammer nearby. The ladder was still propped up and extended to a set of second story windows. There were no witnesses to the accident. The victim died from head trauma.

MIOSHA violations:

- Part 11, *Fixed and Portable Ladders*, Rule 1112(1) – No ladder safety training provided.
- Part 1, *General Rules*, Rule 114(1) – No accident prevention program developed.

Hair Straightening Products and Formaldehyde

By: Mark F. Pedo, Senior Industrial Hygienist & Elaine Clapp, Safety and Health Manager

Hair straightening products often contain or release formaldehyde, a human carcinogen, a strong irritant, and a sensitizer which can cause skin, eye or respiratory illnesses. These products can also contain keratin, a protein found naturally in hair. Formaldehyde or formaldehyde derivatives are used to help bond the keratin molecules together, enhancing the hair straightening properties.

Stylists can inhale formaldehyde vapor or absorb it through their skin when they're applying hair straighteners. Exposure can occur throughout the entire process, especially when heat is applied during blow drying and flat ironing. Symptoms associated with exposure to formaldehyde include eye irritation, skin rashes, and respiratory illnesses.

Labels on some of these products state they do not contain formaldehyde. However they may list **formalin** or **methylene glycol**, which can release formaldehyde, especially when heated.

Formaldehyde Exposure Rules

Formaldehyde must be listed on the material

safety data sheet (MSDS) for any product that contains greater than 0.1 percent formaldehyde or that can release formaldehyde into the air at concentrations of 0.1 parts per million (ppm) or greater.

The MIOSHA Formaldehyde Standard (Part 306) includes permissible exposure limits to formaldehyde and rules designed to protect employees. Employers need to review MSDSs for any mention of formaldehyde, formalin, or methylene glycol.

Air monitoring is required to determine if employees may be exposed to formaldehyde or when employees report signs and symptoms of respiratory or skin conditions associated with formaldehyde exposure. Local exhaust ventilation may be used to draw formaldehyde vapors away from employees and clients.

Please see the MIOSHA website for a fact sheet on Hair Straightening Products and a copy of Part 306. You can also contact the Consultation, Education, and Training Division at 517.322.1809, or the General Industry Safety and Health Division at 517.322.1831.



Safety Standards Interpretations

Can an employee use a powered industrial truck permit that was issued by another employer?

No, an employee cannot use a permit that was issued by another employer. General Industry Safety Standards, Part 21, *Powered Industrial Trucks*, goes into great detail about the employer's responsibility when it comes to: *Operator Selection* in Rule 2151, *Training* in Rule 2152, *Testing* in Rule 2153, and *Permits* in Rule 2154.

When an employee changes jobs, the current employer is allowed to evaluate the employee's previous training to determine if the employee can safely operate a powered industrial truck in the current employer's facilities. Rule 2153 indicates that an employer may test the employee who has a valid permit to operate a powered industrial truck issued by another employer. The current employer does not need to provide the training required by Rule 2152, *Training*, if the employer can show that the employee can operate the assigned powered industrial truck through the functions necessary to perform the required work. An employer must assure that an employee can meet the minimum requirements required by Part 21 and must retest the employee not less than every three years.

CASE SUMMARIES

MECHANIC – ELECTROCUTION

In August 2010, a 46-year-old employee was performing maintenance work on a pumper truck with a conveyor system which had been raised to allow him to oil and grease the truck. The conveyor came in contact with high voltage power lines. The employee received a fatal electrical shock.

MIOSHA violations:

- Act 154, Section 11(a) – Employer failed to train employees on required clearance distances for overhead power lines.
- Part 1A, *General Provisions*, Rule 220(1) – Inadequate access, climbing up over 16-inches onto fender of pumper truck.
- OSH 11, *Recordkeeping*, Rule 1139(1) – Employer did not report the fatality as required.

LABORER – CRUSHED BY

In July 2010, a 19-year-old employee of a towing and salvage company was crushed by a vehicle when it fell from a tow truck. The employee was taken to the hospital with severe head injuries where he later died.

MIOSHA violations:

- Part 1, *General Provisions*, Rule 34(2) – Employee underneath the carriage of the towed vehicle, with no secondary supporting system.
- Part 72, *Automotive Service Operations*:
 - Rule 7233(5) – No safety chains.
 - Rule 7211(a) – Employee not trained in the hazards and safeguards of the job.
 - Rule 7211(b) – The winch boom arm supporting bracket was not properly maintained.

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High Hazard Industry Focus

By: Carla M. Mose, CIH, Senior Industrial Hygienist

Fabricated Metal Product Manufacturing (NAICS 332), Machinery Manufacturing (NAICS 333), and Transportation Equipment Manufacturing (NAICS 336) are three of the 13 high-hazard industries the General Industry Safety and Health Division (GISHD) has targeted for enforcement during 2009-2013 because of high injury and illness rates.

The nonfatal occupational injury and illness incidence rate among private industry employers in 2009 was 4.2 cases per 100 full-time workers. For the same time period, the rate for NAICS 332 was 6.5, for NAICS 333 it was 5.2, and for NAICS 336 it was 6.7. The goal of this targeted enforcement is to reduce the injury and illness rate in these industries by 20 percent by the year 2013.

Metal Forming Hazards

The three industries listed above are related sub-sectors of **Manufacturing** as defined by the NAICS System. They all use one or more of the metal forming processes such as forging, stamping, bending, forming, machining, assembly, welding and cutting.

The equipment and materials used for these types of manufacturing and processes can lead to serious health and safety hazards. The common hazards are covered by the standards below:

- Part 23, Hydraulic Power Presses,
- Part 24, Mechanical Power Presses,
- Part 26, Metalworking Machinery,
- Part 42, Forging,
- Part 85, Control of Hazardous Energy Sources,
- Part 301, Air Contaminants,
- Part 380, Occupational Noise Exposure.

Other general hazards include, but are not limited to: hazard communication, personal protective equipment, lead (from processes with lead-containing steel), hexavalent chromium (from welding on stainless steel), welding and cutting, powered industrial trucks, cranes (overhead and under hung), slings, conveyors, electrical/ fire safety, and ergonomics.

Standards and publications related to these hazards can be reviewed on the MIOSHA website at www.michigan.gov/miosha.



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Best Practices: Johnson Technology Inc.

By: Doug Kimmel, MVPP Program Specialist

Johnson Technology Inc.'s Latimer plant in Muskegon received the Michigan Voluntary Protection Program (MVPP) Star Award on July 9, 2003. Their Norton Shores plant received the MVPP Star Award on July 16, 2004.

During the Latimer facility's award ceremony Johnson Technology President **David Yacavone** said, "This is the ultimate demonstration of Johnson Technology's commitment to our workers' safety and health, while at the same time making the company more competitive."

At all Johnson Technology facilities, commitment of material resources to safety is substantial. All required personal protective equipment is provided in ample quantities and appropriate for the hazards present. Comprehensive safety surveys are conducted and a sophisticated system of physical hazard controls is in place and highly effective. The company also conducts exposure monitoring on a regular basis.

Johnson Technology is also striving to help their associates lead healthier lives by providing access to healthcare experts and high quality healthcare insurance programs. Johnson Technology wants their employees to have the best possible health at work and at home – it's what they call **Health Ahead**.

Health Ahead Program

The Health Ahead program is designed to promote a culture of health through programs that provide employees and their families the means to live and work in the healthiest way possible.

Seven associate-driven Wellness Committees are utilized, these include:

- Education & Prevention,
- Nutrition,
- Tobacco Cessation,
- Physical Activity,
- Health-related Absence Management,

- Health Risk Awareness, and
- Stress Reduction.

Each committee is charged with making Johnson Technology a healthier place to work. The Physical Activity committee recently coordinated an event at a local sports complex, allowing associates a chance to ski, skate, and luge, as a way to have fun and exercise.

All Johnson Technology facilities are now tobacco-free and tobacco cessation programs are available to employees. Johnson Technology is committed to providing healthy worksites and promoting healthy living for all employees, customers and visitors.

Johnson Technology associates embrace the idea of making healthier choices both at work and at home. In 2010 they held: a Healthy Recipe Contest, an Associate and Family Health Fair, a Flu Shot Clinic, and a Million Step Contest to encourage walking at home and at work.

Health and wellness is a key focus at Johnson Technology. In 2011 they plan to continue to implement innovative opportunities to help associates and their families be more active and become healthier.

Johnson Technology Inc. is a wholly owned subsidiary of the General Electric Company. Johnson Technology produces jet engine parts for the commercial airline industry and U.S. military aircraft.



An "Associate and Family Fun Fair" was one of the events sponsored by the Health Ahead program.

MIOSHA Awards

Employer Honor Roll

- 02/09/11–Potlatch Corp. Gwinn Lumber Mill–MVPP Rising Star Award
- 09/03/10–Detroit Edison, Fermi 2–MVPP Star recertification
- 10/06/10–Alcoa Howmet, Whitehall Operations–MVPP Star recertification
- 11/10/10–Aleris International, Saginaw–MSHARP recertification
- 11/10/10–Midwest Int. Standard, Charlevoix–MSHARP recertification
- 12/10/10–FIAMM Technologies, Cadillac–MSHARP recertification
- 01/25/11–Aleris Specification Alloys, Coldwater–MSHARP recertification
- 01/27/11–Sherwin Williams, Holland–MVPP Star recertification
- 01/27/11–Monsanto Company, Constantine–MVPP Star recertification
- 02/03/11–Huntsman Corporation, Auburn Hills–MVPP Star recertification

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

New Permit-Required Confined Spaces Instruction

Confined spaces are one of the most difficult hazards to control in the workplace. In 2010 MIOSHA issued a new instruction to help clarify MIOSHA Standard Part 90/490, *Permit-Required Confined Spaces*, for MIOSHA staff and the public. The instruction establishes policies to ensure uniform enforcement and interpretation of the standard. Compliance guidelines are addressed both within the main part of this instruction and the appendices.

The seven Appendices contain: FAQs; great sample programs; evaluations tools; guidelines for developing a Permit-Required Confined Space Entry written program; a compliance checklist; a sample entry permit; and specific vertical standards taking precedence. The evaluation tool contains a downloadable spreadsheet which allows individual customization.

The instruction titled, **MIOSHA-STD-05-1R1**, is on our website in the "Policies and Procedures" section at www.michigan.gov/mioshapolicies. Click on "Search for Instructions" and type in the instruction title or the words "confined space." Please call the CET Division for materials referenced by this instruction, or to contact a CET consultant.

Take a Stand Day

Who: Employers are invited to "Take a Stand" for safety and health.

When: Wednesday, June 8th.

What: More than 125 MIOSHA compliance and consultation staff will visit Michigan worksites.

- These visits will focus on specific hazards/areas requested by the employer.
- There will be NO CITATIONS and NO PENALTIES for participating workplaces.
- Participants must agree to correct all serious conditions.

How: To schedule a visit contact the CET Division:

- Call the Lansing office at 517.322.1809.
- Register online at www.michigan.gov/mioshatasd.
- Submit your request by **May 25th**.

1,300 employers have participated in "Take a Stand Day" since 2005.



(Left) Govro-Nelson Company, St. Clair, participated in "Take a Stand Day" in 2010; (Right) Triangle Associates, Inc., Grand Rapids, also participated in 2010.

MIOSHA News Quiz

Topic: Powered Industrial Trucks

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.

Ask MIOSHA

Question: I have an employee who refuses to submit to random drug testing as is our policy. The employee refuses to submit since he claims he has a "Medical Marihuana (Marijuana) Prescription" card. He brings his "prescription" to work and partakes at break and lunch times. The employee is an ironworker on steel erection projects and claims he is not impaired.

Answer: The Michigan Department of Community Health (MDCH) has been designated as the appropriate resource for answers regarding the Michigan Medical Marihuana Act (MMMA). The FAQ section under MMMA on the MDCH website answers many questions concerning employee and employer rights under the law. Some key points are: employers are not required to accommodate an employee's medical marihuana use and may continue to require a worker to submit to drug testing; and employers are not required to allow a medical marihuana user to "partake" in the workplace – this is at the discretion of the employer. The MMMA does not permit a card-carrying medical marihuana user to smoke in public places; nor does the MMMA allow users to operate motor vehicles under the influence or allow negligence or professional malpractice.

MIOSHA addresses employer and employee responsibilities in Construction Safety Standard Part 1, *General Rules*.

■ **Rule 115 (3)** specifically addresses an employer's responsibilities: *An employer shall not knowingly permit an employee to work while under the influence of intoxicating beverages or substances which could impair the employee's ability to perform a task in a safe manner.*

■ **Rule 116 (2) (a)(b)** specifically addresses an employee's responsibilities. An employee shall not do any of the following:

(a) *Engage in any act which would endanger another employee.*

(b) *Work while under the influence of intoxicating beverages or substances which would impair his or her ability to perform a task in a safe manner.*

MIOSHA will continue to enforce safety and health rules to protect employees; therefore employers must assess their workforce and work operations to make certain that the rules they are implementing for medical marijuana use by employees comply with safety and health standards and protect employees.

www.michigan.gov/askmiosha

Variances

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

In his State of the State address, **Governor Snyder** resolved to create a regulatory process and environment that is conducive to economic growth. In the area of MIOSHA standards, the new administration's preference is for rules that do not go beyond the federal equivalent.

The federal Occupational Safety and Health Administration (OSHA) issued its *Fall 2010 Regulatory Agenda* on December 7, 2010, and it's available on their website. All U.S. Executive Branch agencies are required to publish semiannual regulatory agendas describing regulatory actions that agencies are developing or have recently completed.

As a state plan state, MIOSHA is required to adopt "substantially similar" regulations to those passed into final rule form by federal OSHA within six months. Therefore it is very important to track the status of changes at the federal level and to participate in the federal rule-making process.

Final Rules:

- Confined Spaces in Construction;
- Electric Power Transmission and Distribution; Electrical Protective Equipment;
- Hazard Communication;
- Cooperative Agreements.

Proposed Rules:

- Occupational Exposure to Crystalline Silica;
- Walking Working Surfaces and Personal Fall Protection Systems (Slips, Trips, and Fall Prevention);
- Combustible Dust;
- Occupational Injury and Illness Recording and Reporting Requirements.

Developing Rules:

- Injury and Illness Prevention Program (I2P2);
- Occupational Exposure to Beryllium;
- Occupational Exposure to Food Flavorings Containing Diacetyl and Diacetyl Substitutes;
- Infectious Diseases;
- Reinforcing and Post-Tensioned Steel Construction;
- Backing Operations.

Interested parties may provide information, experience and first-hand knowledge to OSHA during the stated comment period for each rule. On January 5, 2011, OSHA held a web chat discussing the regulatory agenda. The web chat and the regulatory agenda are on their website at www.osha.gov.

Proposed Ergonomics Rule Discontinued

Gov. Rick Snyder called for a ban on state-specific ergonomics standards in his State of the State address. This proposed ergonomics rulemaking has been discontinued.

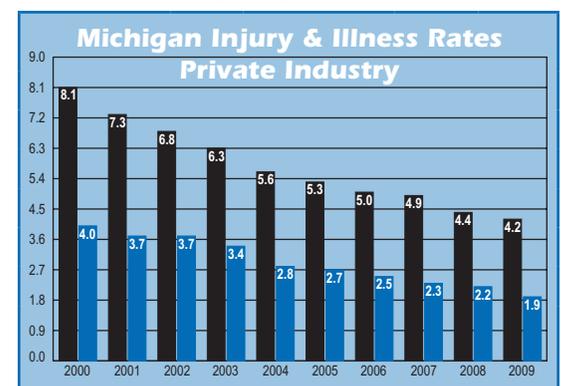
Michigan Injury and Illness Rates

By: John Peck, MTSD Director

Two indicators MIOSHA uses to evaluate the effectiveness of our activities are the injury and illness rates calculated by the Bureau of Labor Statistics through their *Survey of Occupational Injuries and Illnesses (SOII)* program. For 2009, the total recordable case (TRC) rate for Michigan private industry was 4.2 per 100 full-time workers. The more serious case rate with days away from work, restriction, or job transfer (DART) was 1.9 per 100 full-time employees.

Michigan has experienced a 48 percent decrease in the TRC over the past decade, and a 52 percent decrease in the DART. When evaluating industries for special emphasis as part of our strategic plan, MIOSHA evaluates whether industries are higher than the state average for private industry. Based on this assessment and other factors, 14 targeted industries are included in MIOSHA's current strategic plan. (The plan is located on our website at www.michigan.gov/mioshastrategicplan.)

Although most of the targeted industries are showing decreases comparable to the state average or greater, some have shown increases. For 2009, the TRC and DART for *Beverage and Tobacco Manufacturing (NAICS 312)* was 13.3 and 8.2, respectively, more than three times the overall rate for private industry. Two other industries with high rates are *Nursing and Residential Care Facilities (NAICS 623)* with 10.4 and 6.4; and *Hospitals (NAICS 622)* with 8.5 and 3.0.



Level Two Course: Personal Protective Equipment Standards

By: Karen Odell, CET Consultant

Hazards exist in every workplace in many different forms: flying particles, chemicals, sharp edges, and other potentially dangerous situations. Controlling a hazard at its source is the best way to protect employees. When engineering, work practice and administrative controls cannot protect employees, employers must provide personal protective equipment (PPE).

MIOSHA has three standards for personal protective equipment. All of which require employers to assess the workplace to determine the hazards or potential hazards of a job, and to determine what PPE is necessary to protect the employees. The three standards also require employers to designate a responsible person to provide employees with the appropriate PPE.

Course Development

This Level Two MTI course, "Personal Protective Equipment Standards for GI & CS: Parts 6, 33 & 433," is designed to provide attendees from both the construction and general industry sectors with an overview of MIOSHA personal protective equipment requirements, as well as the PPE requirements that are included in some other MIOSHA standards.

Course Objectives

1. **MIOSHA Standards:** Provides an overview

of PPE requirements for General Industry Safety Standard, Part 33; Occupational Health Standard, Part 433; and Construction Safety Standard, Part 6.

2. **Hazard Assessment Components:** Includes how to conduct and document hazard surveys and how to identify the sources of hazards or potential hazards to feet, head, eyes, face and body.

3. **Selection and Use Requirements:** Covers PPE selection and maintenance criteria to ensure a level of protection greater than the minimum required to protect employees from the hazards.

4. **Training Requirements:** Covers PPE training requirements, including: when PPE is necessary, what PPE is necessary, how to adjust and wear it, and how to care for it.

This course is designed for first-line supervision, safety and health committee members, and management personnel. Using MIOSHA general industry and construction standards and required written programs as a baseline, participants are given suggestions to improve their safety and health hazard recognition skills.

This course is a requirement for the Level Two certification. Check the MTI calendar to see class schedules.

MTI website: www.michigan.gov/mti



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To Help Assure the Safety and Health
of Michigan Workers.**

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