



# MIOSHA NEWS

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## MIOSHA Kicks Off "Safety Pays" Campaign When You Protect Your Workers – You Pay Yourself

MIOSHA kicked off a major campaign, "Safety Pays," at the Associated General Contractors (AGC) of Michigan's annual *Michigan Construction Safety Training Day* at the MSU Henry Center for Executive Development in Lansing, on March 23rd.

The theme of the campaign is: Protect Workers...Pay Yourself. According to the *Liberty Mutual 2008 Workplace Safety Index*, the total financial impact of serious workplace incidents is between \$170 and \$255 billion annually.

The National Safety Council estimates a worker injury with NO lost time costs \$7,000 on average. A company must sell extra product/services to cover the accident costs. For example, if a company has an accident that costs \$5,000 and operates with a profit margin of three percent, then \$167,000 in additional sales are needed to make up what was lost on this one accident.

### Reaping Safety Benefits

"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," said MIOSHA Director **Doug Kalinowski**. "As I've said many times before, the costs of reacting to workplace injuries and illnesses far exceed the costs of prevent-

ing them from happening in the first place."

During the kick off, **Rob De Ward**, Safety Director, Kamminga & Roodvoets, Inc., Grand Rapids, and **Vince Griffin**, Safety Director, RAM Construction Services, Inc., Livonia, shared how protecting their workers resulted in significant savings to their companies.

"We developed a more visible and structured safety and health system," said **De Ward**. "Our Experience Modification Rate (EMR) is now below 0.6, resulting in savings in our workers' compensation costs this year of more than \$211,000."

"It took several years, but we decreased our Experience Modification Rate (EMR) from a high of 1.43 to a low of 0.286," said **Griffin**. "This reduction resulted in an average savings in workers' compensation costs of \$82,000 per year for the last three years, with \$246,000 total savings."

### Investing in Worker Safety

Federal OSHA estimates that for every \$1 invested in workplace safety and health, employers see a return of \$4 to \$6 dollars. The "Top 10 Bottom Line Benefits" include: reduced absenteeism, lower turnover rates, higher productivity, greater efficiency, increased quality, decreased scrap/waste, increased employee morale, positive brand image, decreased health care costs, and decreased workers' compensation costs.

MIOSHA has developed a "Safety Pays" Fact Sheet and a "Ben Franklin" Card for employers, which highlight the benefits of protecting workers. MIOSHA's goal is to ensure that effective tools and train-

ing are available to employers to help prevent workplace injuries, illnesses and fatalities.

The "Safety Pays" campaign is part of MIOSHA's "Protecting Workers in Tough Economic Times" initiative, launched on May 7, 2009. This initiative focuses on how a comprehensive safety and health management system can help employers protect their workers and their bottom line.

As part of the initiative, MIOSHA is offering penalty reductions to companies who are compliant at the end of a MIOSHA inspection, as well as other incentives to encourage companies to develop safety and health systems that protect their workers. (See full article in Summer 2009 MIOSHA News.)

### Locating Safety Resources

"The MIOSHA program is dedicated to protecting the safety and health of Michigan's working men and women," said **Kalinowski**. "We are ready to partner with any Michigan employer or organization to increase safety and health awareness and encourage the use of all available resources, including MIOSHA outreach services, to provide a safe and healthy work environment."

To "Protect Workers and Pay Yourself," contact MIOSHA's Consultation Education and Training (CET) Division at 517.322.1809. The CET Division has consultants available statewide to provide employers with assistance in creating safety and health systems, developing accident prevention programs, and implementing long-term safety and health solutions.

A variety of information is also available on our website at [www.michigan.gov/miosha](http://www.michigan.gov/miosha), including standards, outreach services, publications, training calendar, alliances and partnerships, initiatives, and fact sheets. In addition, the MIOSHA website highlights Michigan workplaces that have been recognized for their outstanding efforts to protect workers.

## Tell Us Your Story!

As part of our "Safety Pays" campaign, we are asking employers to tell us your story.

We believe the best way to convince employers that workplace safety is good for the bottom line, is to show examples of employers who "talk the talk" and "walk the walk."

**Rob De Ward**, Safety Director, Kamminga & Roodvoets, and **Vince Griffin**, Safety Director, RAM Construction Services, shared their stories at the "Safety Pays" kick off.

■ **Kamminga & Roodvoets** saved more than \$211,000 in one year.

■ **RAM Construction Services** saved more than \$246,000 over three years.

If your company has a good safety and health system, and you want to share your story:

■ **Go** to [www.michigan.gov/miosha](http://www.michigan.gov/miosha) and click on the "Tough Times" initiative;

■ **Pull** up the "Tell Us Your Story" questionnaire;

■ **Complete** the questionnaire and email it back to us.

The information we collect will be used to create promotional and presentation materials to share with other employers.

We at MIOSHA are excited at the prospect of sharing your stories with other employers!

For additional assistance, please contact the **CET Division at 517.322.1809**.



MIOSHA kicked off the "Safety Pays" campaign at the AGC of Michigan's annual *Michigan Construction Safety Training Day* in Lansing.



Working to Create Michigan's Future Today



Doug Kalinowski, CIH  
Director

**MIOSHA Workplace Standards**

MIOSHA standards play a vital role in helping to protect Michigan's working men and women. The ability to adopt and enforce standards that are "at least as effective as" those of federal OSHA is a basic structural requirement of all state plan programs.

The majority of Michigan's safety and health standards/rules are comparable to those of federal OSHA. When MIOSHA adopts federal rules without substantive changes, an abbreviated process through the Mich-

conomic Growth (DELEG).

If moved forward, DELEG prepares a *Rulemaking Policy Analysis Form*, and develops a *Regulatory Impact Statement* which highlights the costs and benefits to employers and employees and the costs for MIO-  
OSHA implementation.

If approved by the DELEG Director, the proposed standard/rules are published in the Michigan Register and public hearings are scheduled and held. Following the hearings, all comments must be reviewed and considered by the commission.

Based on the public input, the commissions may make modifications or send it back to the advisory committee. No changes can be made on issues that were not addressed in the public hearings unless another round of public hearings is held.

The final steps include approval by the DELEG Director, submission to the Joint Committee on Administrative Rules, and filing with the Secretary of State.

*"The initiation, development and completion of Michigan-specific standards/rules offers many opportunities for public input."*

igan Administrative Procedures Act (APA) is used.

When modifications to federal rules or totally new rules are considered, a multi-step process is required to allow input from everyone – employers and employees – who may be affected by them.

Current Michigan-specific rules under consideration include: Certification of Construction Crane Operations, Masonry Wall Bracing, Sanitation in Construction, Diisocyanates, Latex and Ergonomics.

**MIOSHA Rule Making Process**

The rule making process typically begins with one of three, nine-member, Governor-appointed standards commissions: the General Industry Safety Standards Commission, the Construction Safety Standards Commission, and the Occupational Health Standards Commission.

Anyone can request a specific issue for a commission to consider. If they decide to consider a rule, the commission is required to appoint an advisory committee representing employers and employees likely to be affected by them.

After a draft is final, it's presented to the commission. This commission can make changes, return it to the advisory committee for additional work or move it forward to the Department of Energy, Labor and Eco-

MIOSHA staff **do not** draft rules. They provide administrative support and legal input (such as language that may or may not be enforceable) to the committees and commissions.

**Public Input**

The initiation, development and completion of Michigan-specific standards/rules offers many opportunities for public input.

The three standards commissions meet at least four times a year. The meetings are open to the public, with time allotted for public comment.

Ten advisory committees are currently open (active, waiting for final approval, or in the process of being formed), with 110 total members. If you are interested in serving on an advisory committee, please contact the MIOSHA Standards Section at 517.322.1845.

Information about specific rules is available throughout the process. To follow the current rules you can be added to our MIOSHA Standards ListServ by going to [www.michigan.gov/miosha](http://www.michigan.gov/miosha). MIOSHA standards can be found at [www.michigan.gov/mioshastandards](http://www.michigan.gov/mioshastandards).

MIOSHA truly appreciates the work of all the members of the standards commissions and advisory committees. Their dedicated service helps make Michigan a safer place to work and live.

**35th Anniversary Web Page**

We added a great MIOSHA 35th Anniversary page to our website and invite you to visit it and help us celebrate the dramatic strides that have taken place in improving workplace safety and health.

The web page includes a PowerPoint "Then and Now" picture show and a quiz. We encourage you to use these in your training programs and safety meetings. They are great ice-breakers and discussion starters!

**Government Transparency**

Recently we've heard an increased call for transparency and open government at the national level. Soon after taking office, President Obama released a memorandum to heads of executive departments and agencies announcing the administration was committed to creating an "unprecedented level of openness in government."

Transparency means that citizens – our customers – have access to information and that we are accountable for what we are doing. This is a good thing! Transparency facilitates shared understanding and knowledge of decision making processes.

Transparency also encourages participation because those interested in a specific area of government have access to information and are better able to provide input and comment. Government programs benefit from this collective expertise and exchange.

Traditional examples of transparency include tools such as the Freedom of Information Act (FOIA), the Administrative Procedures Acts, and published government documents such as audit reports.

While these tools are important, we now have more efficient tools that allow us to share information as soon as it is available, 24/7, and for as long as it is relevant. MIOSHA uses several ListServes and our web pages to share information quickly and keep information available to those who may need it.



Martha Yoder  
Deputy Director

**MIOSHA Transparency**

Our current Strategic Plan for MIO-  
OSHA includes a goal to "Foster a culture of integrity, inclusion, teamwork, and excellence to strengthen confidence in the delivery of MIO-  
OSHA services."

One principle strategy is to share information as soon and as broadly as possible. The MIOSHA website is a great way for us to let our customers know about new program requirements, policy changes, and to share proactive education and training materials.

Several years ago we began posting internal instructions and our enforcement Field Operations Manual on the MIOSHA website. Prior to posting, those interested in agency policy and the guidance we use to interpret and enforce rules were required to file a FOIA request. We did not feel this should be necessary for routinely used and referenced information that can help employers and employees understand MIOSHA requirements and expectations.

MIOSHA has a dedicated group of staff who serve as our web coordinators along with their other responsibilities. This group ensures that posted material is final, has required approvals, and is properly formatted for the web. They continuously review material to ensure that it is current and accurate. We appreciate their ongoing work and efforts.

**Revised Field Operations Manual**

Recently, we revised our enforcement Field Operations Manual. An article with the changes is on Page 3.



Check out the "Then and Now" photos on our 35th Anniversary web page.

## Michigan Work-Related Amputations

By Deb Gorkisch, CET Safety Consultant

Machines that have moving parts – and their operators – have an uneasy relationship. Wherever there are machines with moving parts and operators to run the machines, there is a potential for harm to the operator.

Machines allow industry to have higher production, with tighter tolerances and lower scrap than is possible with hand tools. Machines bend, cut, punch, shear, drill and press materials with moving parts and extreme forces. These same machines that allow us to do great work may also have a tremendous negative effect on the workers that operate them.

### Reducing Amputations

Amputations are some of the most serious and debilitating of workplace injuries. Since the creation of the Michigan Occupational Safety and Health Administration (MIOSHA) in 1974, there has been recognition of the importance to reduce work-related injuries and illnesses in our state.

Reducing amputations in Michigan was a specific strategic goal for MIOSHA from 2004 - 2008 and remains part of the overall strategic plan goal to reduce serious workplace injuries and illnesses by 20 percent in high hazard industries for the plan years 2009 - 2013.

Based on these goals MIOSHA developed a strategy to work cooperatively with the occupational safety and health community to identify and address workplace amputation hazards.

### Tracking Amputation Data

With this strategy in mind, MIOSHA, the Michigan Department of Community Health (MDCH) and the Occupational and Environmental Medicine (OEM) Division of Michigan State University's (MSU) College of Human Medicine began to track data to obtain work-related amputation information from various sources.

In May of 2004 the staff in the OEM Division of MSU's College of Human Medicine began reviewing hospital records for patients treated for amputations and referring cases that met certain MIOSHA criteria.

By 2006 a surveillance system to track all work-related amputations treated at Michigan hospitals was established. OEM uses information provided by all 131 Michigan acute care hospitals as well as

data from the Michigan Workers' Compensation Agency to provide annual reports on work-related amputations.

The latest report from OEM and MDCH titled "Work-related Amputations in Michigan, 2007" came out in December of 2009. Below is a summary of the report's significant findings.

### Significant Amputation Findings

- The system identified a total of 708 Michigan resident work-related amputations. This corresponds to a rate of 15.2 per 100,000 workers. In comparison, the official U.S. Department of Labor estimate (160) was 77 percent lower.

- Hospital medical records identified 597 cases. Workers' compensation lost work time claims data identified 111 additional cases which were not found using medical records alone.

- The amputation rate for males was seven times that for females. Among males, rates were highest for those aged 20 - 24.

- Forty-five percent of the incidents occurred among those working in the manufacturing industry. The specific manufacturing groups with the highest rates were Paper Manufacturing and Primary Metal Manufacturing.

- Power saws were the leading cause of amputations.

- Ninety-five percent of amputations involved fingers. One in nine of these finger injuries involved the loss of multiple fingers.

- Overall, upper extremity amputations occurred most often on the left side. However, left-hand dominant workers sustained more right-side injuries.

- Workers' compensation was the expected source of payment of hospitalization or emergency department care for 76 percent of the cases for which payment source was identified. Payer source could not be determined for 8.4 percent of medical records reviewed.

- MIOSHA inspected 68 of the 140 worksites referred by OEM and assessed an average of nine violations and \$1,175 in fines per inspection.

### Targeting MIOSHA Resources

The information gained from this annual report is highly valuable to both MIOSHA and industry. It is the most accurate account of amputations in our state.

In the past, information from the Bureau of Labor Statistics (BLS) in the U.S. Department of Labor, which generates an estimate from a sampling of employer injury logs was, and is, the basis for the official count of workplace injuries.

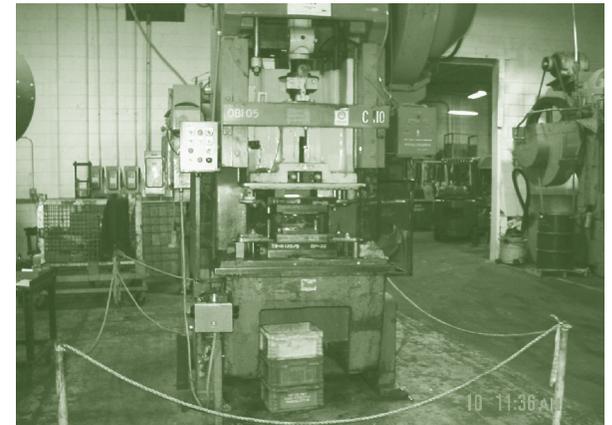
However, BLS data varies greatly from the hospital and workers' compensation claim data provided by the current OEM and MDCH surveillance system. This report information and referral program will be used to target MIOSHA program resources and assistance in the future.

From MIOSHA's perspective, the report identifies hazardous worksites that may otherwise go undetected and helps focus consultation, education, and enforcement attention where it is needed by identifying trends in particular industries and worker groups.

Companies can take the information given in this annual report to direct and strengthen their internal safety policies, training regiments, machine specific guarding and procedure requirements.

To help employers prevent amputations, the Consultation, Education and Training (CET) Division has training materials and seminars designed to assist with machine guarding techniques, operator training requirements, and required program assistance. Please visit our website at [www.michigan.gov/cet](http://www.michigan.gov/cet) or call us at 517.322.1809.

To review the full "Work-related Amputations in Michigan, 2007" report, please visit [www.oem.msu.edu/AnnualReports.aspx](http://www.oem.msu.edu/AnnualReports.aspx).



A 22-year-old employee's hands and arms were amputated on this 100-ton power press, because she was not trained in press operation and the press was not properly guarded.

## Revised Enforcement Field Operations Manual Issued

On April 6, 2010, MIOSHA issued a revised Field Operations Manual (FOM) covering enforcement activities. The revisions incorporate changes made by federal OSHA to its manual in April and November 2009.

MIOSHA is required to adopt policies that are "at least as effective as" the policies put in place by federal OSHA.

### Significant Enforcement Changes

- A partial inspection must be expanded to address potentially serious hazards in "plain view."

- Inspections may be delayed up to one hour to await the arrival of an employer representative.

- A new section on MIOSHA's role during an emergency response.

- Information from a voluntary or self audit will not typically be used to document a violation.

- A notice of safety/health recommendation or potential hazard may be issued when potential exposure exists, but a violation cannot be documented.

- A repeat violation of the same rule may be from the same or a different workplace.

- A citation may be warranted when the lack of a MIOSHA poster is a complaint item.

- The minimum penalty for a Serious violation is increased from \$75 to \$100.

- Size reductions are changed from site to state-wide employment.

- Repeat multipliers are increased from 2 to 5

for a first repeat and from 5 to 10 for a second repeat for a large employer (250 or more employees).

- The 15 working day contest period begins on the day following the day of receipt of the citation.

- A new size reduction chart and penalty table for willful violations are adopted.

There are many additional changes. Some reflect efforts to move toward greater use of plain language. Other changes clarify information or provide needed guidance.

The revised Field Operations Manual is posted on the MIOSHA website, [www.michigan.gov/miosha](http://www.michigan.gov/miosha). Look under the "A-Z Topic Index" for "Field Operations Manual."

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

## High-Visibility Apparel

By Patty Meyer, CSHD Safety Manager

### New FHWA Requirement

On November 24, 2008 the Federal Highway Administration (FHWA) released 23 CFR Part 634 which requires all employees who perform work on or in a right-of-way of federal-aid highways to wear ANSI 107-2004 Class 2 or Class 3 High-Visibility apparel.

This new requirement will help protect construction and maintenance crews by making them more visible during daytime and nighttime work. The Michigan Department of Transportation (MDOT) immediately adopted 23 CFR Part 634 as part of their requirements on all their highway and road construction projects.

### MIOSHA Requirements

Currently, MIOSHA enforces the 2005 edition of Part 6 – Michigan Manual of Uniform Traffic Control (MMUTCD) adopted by reference in Construction Safety Standard, Part 22, Signals, Signs, Tags and Baricades. In the 2005 edition, wearing high-visibility safety apparel is a key element that must be considered in a temporary traffic control work zone.

The MMUTCD 2005 edition requires high-visibility apparel for traffic regulators and recommends all other workers exposed to moving traffic or construction equipment, wear high-visibility apparel meeting the requirements of ISEA "American National Standard for High-Visibility Safety Apparel."

The selection of Class 1, 2, or 3, apparel is based on the employee's proximity to traffic, traffic speed, and whether the work allows the employee to pay attention to traffic while working.

### New MUTCD Requirement

The new 2009 edition of the Federal MUTCD has the specific language from 23 CFR Part 634 for high-visibility safety apparel requirements. MDOT has two years to update the MMUTCD. When the new edition is completed, MIOSHA will revise Construction Safety Standard, Part 22, to include the new requirements.

Until then, MIOSHA may cite a violation of the General Duty Clause when an employee is working in a temporary traffic control work zone without Class 2 or Class 3 high-visibility apparel, where death or serious physical harm is caused or is likely to be caused.



## Health Hazards & Road/Bridge Construction Projects

By: Jeffrey L. Silva, CSHD Senior Industrial Hygienist

With funding provided by the American Recovery & Reinvestment Act (ARRA), we are seeing an increase in the number of infrastructure-related projects in Michigan, particularly those related to road and bridge construction.

While it is readily apparent that such projects can present serious safety hazards (e.g., struck-by vehicle, unsafe excavations, falls, etc.), what may be overlooked are the health hazards associated with exposure to chemical and physical agents present in the work environment. Health hazards are often longer term, requiring several years of exposure before resulting in a serious debilitating or life threatening disease that may be non-reversible.

### Identifying Health Hazards

Physical hazards in the work environment can include excessive noise, equipment vibration, and exposure to extremes in temperature. Chemicals in the work environment can pose a hazard through multiple routes of exposure (i.e., ingestion, inhalation, and skin absorption).

Examples of such hazards include:

- The inhalation of crystalline silica during abrasive blasting and concrete cutting/breaking activities;
- The inhalation and ingestion of metals such as cadmium and lead which may be contained in paint used on columns and beams during torch cutting and abrasive blasting operations; and
- The inhalation, ingestion, and skin ab-

sorption of chemicals during painting activities.

### Reducing Health Hazards

These physical and chemical hazards can be reduced through the implementation of administrative and engineering controls. Such measures include employee rotation, chemical substitution, isolation of hazardous processes, and ventilation systems that capture contaminants.

When such controls are not feasible or capable of reducing employee exposure to acceptable levels, then the use of personal protective equipment must be required.

While the number and types of safety and health hazards present in the construction work environment may seem overwhelming, assistance is available from MIOSHA.

To access MIOSHA outreach services, please call the CET Division at 517.322.1809.



## Construction Partnerships – 01/29/10 Update

**Christman Company:** Signed 01/26/07, the partnership covers the Michigan Street Development project in downtown Grand Rapids. As of 01/29/10, the project had logged 1,391,000 hours, with two lost time injuries and 20 recordables.

**Detroit Edison:** Signed 09/18/07, with four prime contractors and DTE Energy at the \$600 million Monroe Power Plant Environmental Controls Project. As of 12/31/09, the companies have logged more than 4,726,600 hours, with two lost time injuries and nine recordables.

**Kamminga & Roodvoets:** Signed 04/06/09, this is a \$14 million underground piping project at the Waste Water Treatment Plant in Muskegon County. As of 12/31/09, the project has logged more than 26,300 hours, with no lost time incidents or recordables.

**Christman Company:** Signed 05/14/09, this is a \$182 million redevelopment project of the historic Ottawa Street Power Plant for the Accident Fund HQ. As of 01/29/10, the project has logged more than 240,400 hours, with no lost time incidents and two recordables.

### ROAD WORKER – STRUCK BY FATALITY

In September 2009, a 56-year-old laborer foreman was killed when a 5-yard dump truck backed over him during a road paving operation. The victim was walking along side of the dump truck and directed the truck driver to back up. The victim stepped behind the dump truck while it was backing up and was run over. The dump truck had a functioning back-up alarm at the time of the accident. A backup alarm is not always effective under noisy conditions. Communication between the driver and a signalman can prevent such tragedies.

MIOSHA violations:

- Part 1, General Rules, Rule 114(2) (d) – No instructions/procedures for signal persons and drivers for backing up during paving operations.

## CASE SUMMARIES

### TRUCK DRIVER - STRUCK BY FATALITY

In June 2009, a 61-year-old truck driver delivered several precast concrete panels to a road project. The driver removed the straps that secured the precast panels to the brackets on the trailer. The crane operator and rigger at the site started to unload one of the precast panels, when a guide line attached to the panel snagged one of the panels still on the truck, causing a panel to fall off the truck striking the truck driver.

MIOSHA violations (not inclusive):

- Part 1, General Rules, Rule 114(2) (c) – No inspection of jobsite to control/eliminate hazards.
- Part 8, Material Handling, Rule 818(1) – Precast concrete panel not properly secured to prevent falling.

## Balancing Patient Care with Employee Safety

By: Magnus I. Ndukwe, MS, GISHD Industrial Hygienist

Many **hazardous drugs** are used by health-care personnel for treatment of patients. These hazardous drugs include chemotherapy drugs, antivirals, hormones, some bioengineered drugs, and other miscellaneous drugs.

### Balancing Patient Care

The goal of this article is to remind health-care workers who handle and administer these hazardous drugs to be cautious as they balance patient care with their personal safety.

Healthcare personnel affected by these drugs include: nursing personnel, physicians, operating room personnel, pharmacists and pharmacy technicians, environmental services personnel, shipping and receiving personnel, and workers in veterinary practices, research laboratories, and home healthcare agencies.

Research has shown these drugs can elicit both positive and negative effects. While they cause the desired effect in patients, they can also cause adverse health effects to exposed workers. These adverse health effects include: skin rashes, infertility, miscarriage, birth defects, and possibly some cancers.

### Protecting Healthcare Workers

Healthcare management should review OSHA and NIOSH guidelines (links below) to ensure em-

ployees use safe work practices during preparation, administration, and cleaning of equipment.

Management should ensure exposed employees:

- Use appropriate personal protective equipment during handling and disposal,
- Use biological safety cabinets when appropriate,
- Limit dermal exposures, and
- Avoid food consumption when handling drugs.

Management should also establish a medical surveillance program, train employees, and periodically monitor for adherence to established procedures. These measures will reduce employee exposure to hazardous drugs and balance patient care with employee safety.

Please contact MIOSHA's Consultation, Education and Training (CET) Division at 517.322.1809 for additional information and/or evaluation of applicable MIOSHA rules and regulations pertaining to the handling of hazardous drugs.

OSHA and NIOSH hazardous drugs guidelines are available at [www.osha.gov](http://www.osha.gov) and [www.niosh.gov](http://www.niosh.gov). On both websites, use the "A - Z Index" and search for "Hazardous Drugs."



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

## High-Hazard Industry Focus

By: Sundari Murthy, GISHD Supervisor

**Hospitals (NAICS 622) and Nursing and Residential Care Facilities (NAICS 623)** are two 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 injury and illness incidence rate among private industry employers in 2008 was 4.4 cases per 100 workers. The BLS industry rate was 8.6 for the hospital sector and was 8.9 for nursing and residential care facilities.

By focusing on the hazards causing the most injuries and illnesses, GISHD's aim is to reduce the rate in these two industries by 20 percent by 2013. This is the third article on the 13 targeted high-hazard industries.

### Hospitals

The hospital industry includes general medical, surgical, specialty, and psychiatric hospitals.

Strains and sprains account for most of the injury rate for this industry. In addition to strains and sprains, MIOSHA will evaluate the following hazards during an inspection:

- General air contaminants (Part 301), and formaldehyde, ethylene oxide, mercury, waste anesthetic gases, hazardous drugs, etc.;
- Blood borne infectious diseases (Part 554);
- Hazard communication (Part 430).

Other areas of interest may include: Hazardous work in a laboratory (Part 431), Eye wash for corrosive chemicals (Part 470), Accident prevention signs and tags (Part 476), Respiratory protection (Part 451), Personal protective equipment (Part 433), as well as TB, workplace violence, and electrical/fire safety.

Standards/guidelines/handouts related to these hazards can be reviewed on the MIOSHA website.

### Nursing and Residential Care Facilities

This industry includes nursing care, mental retardation, mental health and substance abuse, continuing care, retirement, and other residential care facilities. Strains and sprains again are a leading cause of injury in this industry. In addition, a MIOSHA inspector would review some of the standards listed above.

Employers can contact the CET Division at 517.322.1809 for proactive education services.



MidMichigan Medical Center Gladwin, an Ergonomic Success Award winner, has an extensive minimal lift program to protect workers and patients. (Pictured is their Steady lift.)

## General Industry Standards Interpretations

### Do fire exits need a sign and light?

MIOSHA General Industry Safety Standard Part 6, *Fire Exits*, provides minimum requirements for exit signs. The standard requires an exit sign when the exit is not immediately apparent from any point of the facility.

If a sign is needed, Rule 685(3) requires that signs be of a size, color and design that will be readily visible and identifiable from the distance of travel for that particular occupancy.

The standard also requires that if a door could likely be mistaken for an exit, it must be identified by a sign stating that it is not an exit or be identified by a sign indicating its actual use or character.

An exit sign is required to be illuminated if it would receive less than 5 foot candles of illumination. A foot candle is a measure of light intensity on a surface equal to one lumen per square foot.

Where a building is only occupied in daylight hours and the means of egress is fully illuminated by skylights, windows, or other means of natural lighting, it may not be necessary to have an illuminated sign.

Requirements for exit signs and illumination are not dependent on the date of installation.

To obtain or review any MIOSHA standard visit [www.michigan.gov/mioshastandards](http://www.michigan.gov/mioshastandards).

## CASE SUMMARIES

### POWERED INDUSTRIAL TRUCK OPERATOR – STRUCK BY

In January 2010, an employee of an automotive supplier company was operating a powered industrial truck to move stacks of material. While he was backing up the powered industrial truck, the employee backed into a stack of material causing the material to fall. As the material fell, the employee was struck in the head and body. The employee died at the scene from the injuries.

MIOSHA violations:

- Part 21, *Powered Industrial Trucks*, Rule 2185 – A powered industrial truck was driven when the operator could not look in the direction of and/or keep a clear view of the direction of travel.

### LABORER – FALL

In January 2010, a township employee was riding on the tailgate of an ATV when he fell off and struck his head on the asphalt. He was transported to a local hospital where he later died of complications from the injuries.

MIOSHA violations:

- Act 154, *Michigan Occupational Safety and Health Act* – Employees were permitted to ride on the lowered tailgate of the 4 X 4 utility vehicle as it was driven.
- Part 1, *General Provisions*, Rule 11(a) – No training on safeguards and hazards, specifically power equipment at the facility.
- Part 11, *Recordkeeping & Reporting of Occupational Injuries & Illnesses*, Rule 1139(1) - An oral report of a work-related fatality was not reported to MIOSHA within the required 8 hours.

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

**Best Practice: Job Hazard Recognition  
and Resolution at Fermi 2**

*By: Doug Kimmel, MVPP Program Specialist*

DTE Energy's Fermi 2 nuclear power plant has been part of the Michigan Voluntary Protection Program (MVPP) since 2004. Because of the inherent hazards in their industry, Fermi 2 has an extensive hazard recognition program.

**Expecting the Unexpected**

Everyone has heard it said at one time or another: "I didn't expect," "I didn't see," "I didn't think," or "I wasn't sure." Accident investigators usually hear this while interviewing an accident victim or others.

So how does Fermi 2 work to prevent an accident from happening? They train their employees and contractors to plan ahead.

In order to plan ahead, it helps to have a tool to guide you. The tool Fermi 2 provides their employees and contractors is called the "Job Hazard Recognition and Resolution" form.

Those using the form are required to identify the work activity and location. The work activity is identified on a work order that includes clear, understandable steps and work direction. A pre-job brief is performed with all the "players" to gain full understanding and to answer any questions prior to start of work.

Next, a walk down of the area is performed. This is a survey of the work area for sources of hazards and potential hazards. Part of the walk

down process includes a review of how to contact help in an emergency and where the first aid kit and fire extinguisher are located to ensure they are readily available.

**The Right Tools**

The "Job Hazard Recognition and Resolution" form helps walk employees through a multitude of possible hazardous conditions including some that may not have been considered. If hazards are discovered and employees must work around them, the form includes a list of personal protection equipment (PPE), tools and equipment, as well as control measures to consider.

All Fermi 2 employees are encouraged to consult the safety professionals at the site if they are unsure of the appropriate steps to be taken. Employees are trained to work together with the expectation that the supervisor and employees will agree on the safest way to complete the work.

The Fermi 2 Nuclear Power Plant is a 1,100-megawatt boiling water reactor owned and operated by Detroit Edison, an electric utility serving more than 2.1 million customers in Southeastern Michigan. The utility operates nine fossil-fuel generating plants, as well as the Fermi 2 nuclear power plant.

Detroit Edison is a subsidiary of DTE Energy (NYSE: DTE), a Detroit-based diversified energy company involved in the development and management of energy-related businesses and services nationwide. Information about DTE Energy is available at [www.dteenergy.com](http://www.dteenergy.com).

To learn more about the job hazard resolution program at Fermi 2, contact Mark Brooks, Union Safety Specialist, Fermi 2 MVPP Facilitator, at [brooksm@dtenergy.com](mailto:brooksm@dtenergy.com).



*DTE Fermi 2 employees perform a pre-job brief prior to start of work.*

**MIOSHA News Quiz**

**Topic: Fall Protection**

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](http://www.michigan.gov/mioshanewsquiz).

**MIOSHA Awards**

**01/27/10 – Detroit Edison River Rouge Power Plant – MVPP Rising Star Award.** The River Rouge facility has 155 employees, many of whom are represented by UWUA Local 223. The River Rouge facility is recognized for their commitment to safety, environmental stewardship and community involvement.



**02/17/10 – Cascade Engineering – Industrial Solutions, Container Group – Ergonomic Success Award.** The Container Group employs 85 workers and is a plastic injection molding operation. Safety is more than just a program at Cascade, it's their culture. And it begins with a commitment from every employee.



**02/17/10 – MidMichigan Medical Center-Gladwin – Ergonomic Success Award.** The Gladwin facility is a 25-bed primary care hospital. In July 2007, the hospital initiated a comprehensive minimal lift program to protect workers and patients during patient transfers, which has significantly reduced repetitive motion injuries.



**Employer Honor Roll**

**01/21/10–Herman Miller 171st, Spring Lake–MVPP Recertification**

**02/02/10– Eberspaecher - North America, Brighton–CET Bronze Award**

**03/10/10– Gestamp Mason, LLC, Mason–SHARP Recertification**

The press releases for all MIOSHA Awards are available on the MIOSHA News website at [www.michigan.gov/mioshanews](http://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](http://www.michigan.gov/miosha) or call the CET Division.

**Take a Stand Day**

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

**When:** Wednesday, May 5th.

**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 call the CET Division, 517.322.1809

**Deadline:** Submit your request by April 23rd.



*(Left) Thompson Brothers, Inc., Muskegon, participated in "Take a Stand Day" in 2008; (Right) First Technology Safety Systems, Inc., Plymouth, participated in 2009.*

## Ask MIOSHA

**Question:** What are the MIOSHA requirements for CPR/AED and First Aid on construction sites? Is everyone on a construction site required to have this training or are there guidelines out there? For example, if two or more are on a construction site (working for the same company) is at least one of the individuals required to be trained?

**Answer:** Part 1, *General Rules*, Rule 132(3) requires that a person who has a valid certificate in first aid training shall be present at the worksite to render first aid.

A certificate is valid if the requirements necessary to obtain the certificate for first aid training meet or exceed the requirements of the United States Bureau of Mines, the American Red Cross, or equivalent training that can be verified by documentary evidence.

Cardiopulmonary Resuscitation (CPR) training is not a requirement. However MIOSHA recommends CPR training along with first aid training. Many causes of construction incidents are not covered in basic first aid courses.

For example, a victim of an electric shock whose breathing and/or heart has stopped must receive immediate assistance from a CPR trained person or death is imminent within three to four minutes. There are other types of construction accidents, such as falls, drowning, and cave-ins that may also require CPR.

Where a remote location or a single employee worksite exists, an employee must provide a written plan that includes alternate methods of assuring available treatment for employee(s). The plan must be communicated to all affected employees which means the plan must be developed and implemented before beginning a project.

Alternative methods may include a means of communication such as a cell phone, two-way radio, or panic button alter system to summon emergency services; a wellness verification procedure where the employee would periodically check in with a central location on a set schedule; or installation of a video monitoring system.

For more information, please check the MIOSHA website, [www.michigan.gov/miosha](http://www.michigan.gov/miosha), and look in the "A – Z Topic Index" under "Medical Services and First Aid."

[www.michigan.gov/askmiosha](http://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](http://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 will appoint an advisory committee to review language on gates on stationary barriers.
- GI Part 33, *Personal Protective Equipment*, the commission approved revisions regarding disposable latex gloves. A public hearing will be scheduled. Additionally, the commission will appoint an advisory committee to address clarity, consistency, and updating consensus standards.
- GI Part 62, *Plastic Molding*, the commission will appoint an advisory committee to update this standard.
- GI Part 69, *Compressed Gases*, this revised standard became effective on February 8.
- GI Part 74, *Fire Fighting*, the commission appointed an advisory committee 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*, the commission approved corrections to Tables 1 to 4 of the proposed standard. A second public hearing was held on March 9.
- CS Part 6, *Personal Protective Equipment*, the commission will appoint an advisory committee to address clarity, consistency, and updating consensus standards.
- CS Part 10, *Lifting and Digging Equipment*, the commission approved revisions for crane operator certification. A public hearing will be scheduled. Additionally, an advisory committee is reviewing rigger and signal person qualifications.
- CS Part 12, *Scaffolds and Scaffold Platforms*, the commission approved revisions regarding guardrails and stair towers. 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 exposure limits for diisocyanates and hexavalent chromium will be updated. Additionally, the commission has appointed an advisory committee to recommend air contaminants whose permissible exposure limits need updating.
- OH Part 316, *Diisocyanates*, the commission reviewed comments from the September public hearing.
- OH Part 433, *Personal Protective Equipment*, the commission approved revisions regarding disposable latex gloves. (See GI Part 33 above.)
- OH Part 554, *Bloodborne Infectious Diseases*, the commission has approved revisions regarding disposable latex gloves. A public hearing will be scheduled.
- OH Part 529, *Welding, Cutting, and Brazing*, the commission will appoint an advisory committee to review respiratory protection references.
- *Limiting Dry Cutting of Masonry Products*, the commission has appointed an advisory committee to discuss the feasibility of a provision limiting silica exposure during dry cutting of masonry products.

#### Joint Standards

- *OH/GI Ergonomics in General Industry*, MIOSHA continues to work on the Regulatory Impact Statement (RIS) for the proposed standard.



### Ronald T. Ray, Jr. – Acting Standards Manager

Ronald T. Ray, Jr. has been appointed the **Acting Program Manager for the MIOSHA Standards Section**, Management & Technical Services Division. As the Acting Program Manager for the Standards Section, Ron oversees the promulgation of new MIOSHA standards and amendments to existing standards. He also ensures adequate resources to support the three MIOSHA standards commissions and the advisory committees that they appoint to draft revisions to and language for MIOSHA standards.

Since 2005, Ron has been the Program Manager and Laboratory Director for the MIOSHA Laboratory and Equipment Services Section (LESS) where he has responsibility for the AIHA-accredited industrial hygiene laboratory, and instrument calibration and maintenance services for field instrumentation. LESS also administers the MIOSHA video lending library, which services approximately 1,900 customers. Ron will continue to retain his LESS position.

Ron has a B.S. in chemistry from Hillsdale College. He initially joined the MIOSHA program in 1990. He has also served as the Chief of the Laboratory Improvement and Special Projects Section in the Michigan Department of Community Health.

## What Can a Student Expect From a MTI Standards Course?

By: Staci M. Smith, Program Developer & Web Coordinator

The purpose of a "MIOSHA Standards" course is to provide training on a specific MIOSHA standard, covering much of the same information a new MIOSHA enforcement employee would receive. In fact, MIOSHA employees attend these standard courses along with the general public.

A student attending a standards course can expect a consistent, thorough review of the MIOSHA standard. Students will discuss the following while reviewing the standard:

- Scope of the standard;
- Pertinent definitions;
- Employer/employee responsibilities;
- Training requirements, if applicable;
- Common violations of the standard;
- Differences between MIOSHA and OSHA rules, if applicable;
- Letters of Interpretations and Fact Sheets; and
- Other resources pertinent to the standard.

Throughout the course, students will actively participate in exercises to reinforce learning. The course will conclude with a review of the material and a written assessment to ensure proficiency. A student who successfully completes a standards course with a test score of 70 percent or better will have the course count toward the achievement of a MTI Level Two - Compliance Certificate Program.

There are two MIOSHA Compliance Certificate Programs: 1) General Industry Safety & Health; and 2) Construction Safety & Health. A student

must successfully take eight core courses and one elective to receive their Level Two assessment-based certificate. Many of these courses have recently been developed and piloted, and others are still under development.

The chart below lists the MIOSHA Standards training courses through September 30th, the end of the fiscal year.

Course details are available in the MIOSHA training calendar at [www.mioshatraining.com](http://www.mioshatraining.com). If you have questions on these courses call 517.322.1809.

### Upcoming Level Two Standards Courses

Date	Standards Course
May 12 & 13	GI Part 40, Electrical Safety Related Work Practices and Part 39. Design Standard for Electrical Safety
May 27	GI Part 85, Control of Hazardous Energy Sources
August 19	GI Part 33, 433, & Construction Part 6, Personal Protective Equipment
September 1	GI Part 21, Powered Industrial Trucks

MTI website: [www.michigan.gov/mti](http://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](http://www.michigan.gov/miosha)**

**The Mission of the MIOSHA Program is: To Help Assure the Safety and Health of Michigan Workers.**

The MIOSHA News is a publication of the MIOSHA program. Its purpose is to educate Michigan employers and employees about workplace safety and health and we encourage reprinting.

DELEG is an equal opportunity employer/program. Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

Website: [www.michigan.gov/deleg](http://www.michigan.gov/deleg)

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