

## Maco Concrete Fatality

### Maco Concrete Receives \$103,600 in Penalties for Fatal Trench Collapse

On Dec. 18, 2006, DLEG Director Robert W. Swanson announced that MIOSHA has cited Maco Concrete, Inc., of St. Clair Shores, with \$103,600 in proposed penalties for allegedly failing to adequately protect employees from trenching and excavation hazards.

“This employer exposed his employees to trenching hazards which led to the death of one worker,” said Swanson. “This tragic workplace fatality could have been avoided. We are sending a clear message to all construction employers that they must be proactive and consistently protect their workers against cave-ins.”

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

be sloped or shored, or trench shields or boxes must be used, to prevent serious injuries or fatalities.

#### Fatal Trench Collapse

On April 23, 2006, Maco Concrete owner Aldo Magnante was operating a backhoe and directing the excavation for a new sewer line in Addison Township. Two employees were laying sewer pipe in an unprotected excavation approximately eight feet deep and four and half feet wide. The sides of the excavation were nearly vertical.

As Magnante was digging the trench, he placed the spoils along the north edge of the excavation. Prior to the fatal collapse, two employees were in the trench when soil broke loose from the north side and they had to run toward the east end of the excavation to avoid being buried by a cave-in.

Magnante removed the sloughed soil from the excavation, again placing it along the north edge. He then directed the employees to go back into the trench to finish the work. Approximately 10 minutes after the employees resumed working, they were buried by another collapse of soil from the north side of the excavation. One employee, Jeffrey Padot was completely buried and died, and the other employee was seriously injured.

#### The MIOSHA Inspection

The MIOSHA inspection found that a trench collapse occurred a few weeks prior to the fatal accident. Maco concrete was installing a basement emergency window on Little Mack Rd., in Macomb County. The excavation was approximately eight



The collapsed Maco Concrete excavation needed to be properly shored before emergency rescue workers entered the trench.

### In This Issue

Director’s Column	2
Coordination of Interventions	3
AlcoTec Wire SHARP Award	4
Huntsman SHARP Award	5
Hexavalent Chromium Hazards	6
Construction Fall Protection	7
Problem Solving System	8
Construction Isocyanate Hazards	9
2007 CET Grants	10
UBC Alliance	11
Definition of “Working Day”	12
Take the MIOSHA Challenge	12
Education & Training Calendar	13
Standards Update	14
WEB Update	16
Variances	16
MIOSHA News Quiz	17

## From the MIOSHA Director's Desk

By: *Martha B. Yoder,  
Acting Director*



## New Year's Resolutions For Workplace Safety & Health

New Year's resolutions are a culture standard in our country. Each year about 100 million Americans start the year with new resolve, new goals and new determination. And, why not? Each New Year brings a great opportunity to evaluate past accomplishments and set future plans. It is a process to keep us proactive, forward thinking and goal oriented.

The New Year is an excellent time to review safety and health experience at your workplace. A review of system elements—management leadership, employee involvement, worksite analysis, hazard prevention and control, and employee training—helps ensure that no aspect of the system is being neglected or falling off course. It also helps ensure that needed safeguards are in place to keep people on the job, without injury during the coming year.

### Business Case for Safety and Health

We know that protecting the health and safety of workers is simply the right thing to do. But there is a strong business case for improving safety and health effectiveness. Federal OSHA estimates the annual direct costs of workplace accidents and injuries is approximately \$40 billion. Workers' compensation losses total a staggering \$150 to \$230 billion annually.

Federal OSHA also estimates that workplaces can reduce costs by 40 percent when effective safety and health systems are in place. In Michigan, we have seen even more dramatic results when employers make the decision to include worker safety and health as a core value of the organization.

You may have read about Brownstown Township-based **Brass Craft Manufacturing** in previous issues. Following renewed focus on their safety and health efforts—their workers' compensation costs were cut from \$279,000 to \$811 in two years' time.

Another company, **Birchfield Construction**, reduced their worker injury rates by more than 50 percent. The savings associated with these reductions are credited with helping the business nearly double in size.

Recently another success story was shared with our consultation staff. **Sherwin Williams** in Holland is a Michigan Voluntary Protection Program Rising Star site. Implementing safety and health improvements have contributed to a nearly 50 percent increase in productivity and reduced the cost per unit produced by 17 percent. Costs associated with quality issues have been reduced 61 percent.

In addition to business case bottom lines results, these employers and many others across the state recognize the benefits of improved morale, reduced absenteeism and turnover. And most importantly, people are able to return home at the end of the workday—perhaps tired, but not physically harmed.

### Two National Studies Highlight Michigan Success

The results of two recent studies also demonstrate the significant cost-saving benefits of workplace safety and health systems.

A study by the **National Academy of Social Insurance (NASI)** reported that workers' compensation benefit payments increased by just one cent per \$100 of payroll, increasing from 90 cents in 2003 to 91 cents

in 2004, the latest year for which data is available.

While the NASI study does not compare workers' compensation costs by state, Ed Welch, a professor at Michigan State University's School of Labor and Industrial Relations and a member of the NASI Data Study Panel, said benefit payments are a good indication of costs.

According to Professor Welch, benefits for 2004 in Michigan were almost 20 percent below the national average and 34 percent lower than in 1994. Welch asks, "What other cost of doing business is 34 percent lower today than it was 10 years ago?"

The cost of medical treatment for work-related injuries in Michigan averaged 34 cents per \$100 of payroll in 2004 compared to 53 cents per \$100 nationally.

The second national study, done by the **National Association of Insurance Commissioners**, looked at after-tax returns for workers' compensation insurers. The study found that workers' compensation insurers in Michigan had an after-tax return on surplus of 17.9 percent compared to 10.5 percent nationally in 2004. On a ten-year basis Michigan insurers had a return of 14.3 percent compared 7.9 nationally.

This success is a testament to the diligence and efforts by Michigan employers and workers to identify and correct workplace hazards. These efforts to keep people safe has resulted in a Michigan work-related fatality rate of 3.0 deaths per 100,000 workers—which is 25 percent below the national average of 4.0. It is a trend deserving of renewed resolution to continue.

### What it takes to Succeed

MIOSHA is taking advantage of the New Year, to review and revisit program strategies for working with Michigan employers and workers. In this issue, you will note articles on several new customer service improvements, and announcements of new program approaches including the "**Connecting MIOSHA to Industry**" initiative and the newly launched "**Michigan Challenge Program**."

We look forward to continuing and expanding the many opportunities for employers and workers to partner with MIOSHA to share information and strengthen workplace safety and health systems.

For individuals, businesses, and government to successfully implement New Year's resolutions and plans, experts recommend a comprehensive approach that includes:

- Strong initial commitment to the goal.
- Identify upfront how you will address problems that arise.
- Track progress. Monitoring and feedback are critical.
- View setbacks as lessons for growth.
- Take baby steps.
- Fine-tune as you go!

Changes and reaching for that next level are not easy, but the results are incredible and worthwhile.

MIOSHA is serious about connecting with Michigan employers and workers to cooperatively work for safer and healthier work environments. We invite you to join us!

*Martha B. Yoder*

# CONNECTING MIOSHA TO INDUSTRY

## Coordination of Enforcement & Consultation Interventions

By: *Martha Yoder, Acting Director  
MIOSHA Program*

A concern heard from worksites that have not previously worked with MIOSHA is whether a consultation visit will trigger enforcement action.

The answer is no. Only in the rare circumstance of imminent danger or refusal to correct significant serious hazards are referrals made.

A new MIOSHA agency instruction, MIOSHA-ADM-06-8, "*Coordination of Enforcement and Consultation Interventions*," was issued on November 8, 2006, to provide guidance on how overlap by enforcement and consultation staff will be addressed. The instruction clarifies the relationship between the Consultation Education and Training Division (CET) and the enforcement divisions, Construction Safety and Health Division (CSHD) and General Industry Safety and Health Division (GISHD).

The goal is to better protect Michigan's working men and women by avoiding duplication of services and working more proactively with employers and workers. Guidance for determining which MIOSHA activity takes priority at a worksite is based on the reason, timing, and scope of the intervention.

### Priority of CET Interventions

It's MIOSHA's policy that all of the following CET interventions are given priority over programmed, routine enforcement investigations.

#### Full Service Onsite Consultation Visits

This is a complete safety and/or health hazard assessment of working conditions, equipment, and processes at the worksite conducted by onsite staff. The program focuses on small

employers in high-hazard industries.

While a workplace is participating in a full service safety or health consultation visit, routine programmed enforcement will not be initiated. The employer is provided a "*Notification of Onsite Consultation in Progress*." This notification lets the compliance officer know the workplace is not currently eligible for a routine inspection.

Employers who are designated as "in progress" must:

- Post the list of hazards identified by the onsite consultant during the workplace review. The list must remain posted for three working days or until the hazards identified are corrected, whichever is later.

- Work in good faith to ensure timely correction.

- Correct all hazards classified as "serious" or "imminent."

#### Hazard Survey Training and Correction

In addition to comprehensive onsite consultation worksite surveys, MIOSHA traditional consultants provide training in hazard identification and correction. This training takes the form of a plant visit and review. The plant review identifies hazards, equipment, and processes where safety and/or health improvements are needed. A list of hazards is created.

Employers are provided a "*Notification of Consultation Education and Training Division Hazard Survey*" to present to a MIOSHA compliance officer who visits for a routine, programmed inspection during the correction period. General industry employers are provided a 30-day correction period. Construction employers receive a 5-day correction period.

#### CET Recognition Programs

MIOSHA recognizes employers working proactively to address workplace safety and health issues through deferrals from programmed enforcement.

**MVPP**—Worksites achieving MVPP status (Star or Rising Star) are removed from programmed enforcement lists. The deferral continues in place for as long as the site meets all requirements to remain in the program. MVPP status starts with application acceptance and continues until MVPP status is granted, denied or the application withdrawn.

**MSHARP**—Worksites achieving MSHARP status are removed from programmed enforcement. De-

ferred continues as long as the site meets all program requirements to remain in the program. Worksites in the process of meeting the criteria for MSHARP are deferred from programmed enforcement until MSHARP status is granted, denied, or the application withdrawn.

**Michigan Challenge Program (MCP)** — Worksites meeting all of the MCP criteria are given a six-month deferral from programmed enforcement. (See article on Page 12.)

#### Enforcement Intervention Priority

Deferrals apply to programmed routine investigations and do not include other types of enforcement. Valid employee complaints, referrals, and fatalities/catastrophes must be investigated. However, each case is evaluated and a decision may be made to defer issues that are already being addressed by a 21(d) onsite consultation in progress or the compliance issues can be added to the scope of the consultation in progress with agreement that results will be shared with the enforcement division and complainant.

There are occasions when safety or health concerns arise when both company management and employee groups call for MIOSHA services during the same period. The goal of MIOSHA is to eliminate hazards in the most efficient manner possible. While the enforcement divisions have legal jurisdiction, there may be circumstances when it is more efficient and does not negatively impact employee safety or health to allow a scheduled full service consultation visit to address the issues.

Upon learning of scheduled consultation services, compliance officers will discuss with their supervisor to determine whether the circumstances warrant continuing or deferring. Consideration will be given to the following factors:

- Timeliness of the scheduled consultation;
- The severity of the hazards;
- The previous company history with MIOSHA;
- The type of enforcement intervention.

Should follow-up or monitoring interventions be necessary based on previous inspection activity, the inspection cannot be deferred, but the scope will be limited to those areas required to complete the purpose of the inspection.

MIOSHA has created a variety of opportunities to work proactively to improve worker safety and health throughout Michigan. The agency seeks employers who are committed to working cooperatively and placing worker well being as a core company value. For more information on any of the program outlined above, contact the CET Division at 517.322.1809. ■



*CET Safety Consultant Doug Kimmel discusses proper guarding techniques with Jim Gothrup, Production Supervisor at Gaylord Precision Tool.*

# Congratulations AlcoTec Wire!

## AlcoTec Wire Corporation Receives SHARP Award for Safety and Health Excellence



*AlcoTec Wire Corporation employees and guests attended the award ceremony and luncheon to celebrate their recognition as a SHARP facility.*

On Oct.30, 2006, Alcotec Wire Corporation became the seventh facility in the state to receive the prestigious SHARP Award for an exemplary safety and health management system. Alcotec Wire Corporation is a subsidiary of ESAB North America and Anderson Group Inc. (AGI), headquartered in Atlanta, Georgia.

MIOSHA established the Michigan Safety and Health Achievement Recognition Program (SHARP) Award to recognize employers that have achieved safety and health excellence far beyond their peers.

“We are honored to welcome Alcotec Wire into this exceptional group of Michigan companies who represent the ‘Best of the Best’ in workplace safety and health,” said DLEG Director **Robert W. Swanson**. “Your outstanding safety and health diligence sends a strong message to all employers that focusing on safety up front is a sound business decision.”

### Investing in Employee Safety

MIOSHA Acting Director **Martha Yoder** presented the SHARP Award to Alcotec Wire President **Tom Svoboda**, and Safety Committee members **Jennifer Hull, Shannon Soupiset, Colleen Mendenhall, Mike Garvon, Mike Symons, and Phil Hency**.

“I’m very proud of the entire Alcotec team for their hard work and creativity to achieve this prestigious award,” said Svoboda. “The ultimate goal of our safety program is to achieve an injury-free workplace—we want all our team members to leave work healthier than when they arrived. A safe work environment is an investment in our team that pays daily dividends.”

The Michigan SHARP Program targets small, high-hazard employers—to help them develop, implement and continuously improve the

effectiveness of their workplace safety and health management system. SHARP provides an incentive for employers to emphasize accident and illness prevention by anticipating problems, rather than reacting to them.

### Protecting Workers

The MIOSHA Onsite Consultation Program in the Consultation Education and Training (CET) Division operates the Michigan SHARP Program. Onsite consultants work with em-

ployers to help them become self-sufficient in managing occupational safety and health. SHARP worksites earn an exemption from “programmed” MIOSHA inspections on a yearly basis.

“There is no corporate value that is more important at our ESAB companies than safety,” said ESAB and AGI President and CEO **Del Tanner**. “I want to congratulate every single employee at Alcotec Wire for their outstanding efforts to work safely—and to foster a climate that protects the safety and health of all employees.”

The North American Industry Classification System (NAICS) Code for Alcotec Wire Corporation is 333992 – *Welding and Soldering Equipment Manufacturing*, which is classified as a high-hazard industry. In 2005, Alcotec had a Total Incident Rate (TCIR) and Days Away from Work and Restricted/Transfer cases (DART) rate that was below the 2004 Bureau of Labor Statistics industry average. Their 2005 TCIR was 4.3 compared to the BLS rate of 5.5 for this type of industry. Their 2005 DART was 2.2, and compares favorably to the BLS industry rate of 2.7.

“The Michigan SHARP Program requires a comprehensive consultation visit, and the correction of all serious workplace safety and health hazards,” said Yoder. “Alcotec Wire Corporation has developed a safety and health system that provides outstanding protection for their workers.”

### Achieving Excellence

The company has an excellent safety and health man-

agement system in place, which incorporates each of the seven required elements: Hazard Anticipation and Detection; Hazard Prevention and Control; Planning and Evaluation; Administration and Supervision; Safety and Health Training; Management Leadership; and Employee Participation. The MIOSHA evaluation team consisted of **Bob Dayringer**, Onsite Senior Health Consultant, and **Bill Shane**, Onsite Senior Safety Consultant.

Some of the Alcotec Wire’s best practices:

- Monthly safety inspections;
- An Internal Corrective Action Resolution Escalation (ICARE) system that tracks correction of identified hazards;
- Several unique safety awareness award programs; and
- Profit sharing that is linked to safety performance objectives.

Alcotec Wire Corporation employs 143 workers and is the technological leader and the world’s largest producer of aluminum welding wire. They possess not only state-of-the-art manufacturing technology and commitment to product quality, but also an assurance to expedient customer service that is unequalled in the industry of aluminum welding, brazing, metallizing, and mechanical wire.

They are the foremost experts in the production of aluminum welding wire and consistently bring innovations to the application engineering side of the business. Their service is unparalleled and they provide the only single source for all of the aluminum alloys currently registered for welding applications and the only source for development and introduction of new welding alloys. ■



*Front: Martha Yoder, Colleen Mendenhall, Jennifer Hull and Connie O’Neill. Back: Mike Symons, Phil Hency, Bob Dayringer, Tom Svoboda, Bill Shane and Del Tanner.*

# Congratulations Huntsman!

## Huntsman Corporation's Marysville Plant Receives SHARP Award for Safety and Health Excellence

On Nov. 15, 2006, Huntsman Corporation's Marysville facility became the eighth facility in the state to receive the prestigious SHARP Award for an exemplary safety and health management system.

### The Marysville plant has been accident free for two years!

MIOSHA established the Michigan Safety and Health Achievement Recognition Program (SHARP) Award to recognize employers that have achieved safety and health excellence far beyond their peers.

### Staying Accident Free

"We are proud to present this premiere safety and health recognition to the employees and management of Huntsman's Marysville facility," said DLEG Acting Deputy Director **Doug Kalinowski**. "Two years without an accident is simply outstanding! Your safety and health record demonstrates that a strong safety and health program goes hand in hand with increased production and profits."

MIOSHA Acting Director **Martha Yoder** presented the SHARP Award to **Walter Stamm**, Plant Manager; **David Zarling**, CHAMPS Process Coordinator; and **Doug Montgomery**, President, USW Local 2-004. Some employees are represented by United Steelworkers (USW) of America International Union, Local 2-004. Employees, corporate officials and guests attended the presentation and luncheon.

"We are honored to receive this award and recognition for the dedication and hard work by all Marysville associates," said Stamm. "It could not have been done without the team approach and the support of everyone working together for the most important objective we

have—everyone gets to go home safe."

### Achieving Excellence

Huntsman and each of its worldwide subsidiaries are committed to achieving excellence in environmental, health and safety (EHS) protection. Every Huntsman facility understands that it is the responsibility of both management and associates to operate safe, clean and efficient facilities in an environmentally and socially responsible manner.

The North American Industry Classification System (NAICS) Code for the Marysville plant is 325211—Plastics Material and Resin Manufacturing, which is classified as a high-hazard industry. The Marysville plant employs 63 workers, and manufactures polypropylene for various industries.

In 2005, the plant had a Total Incident Rate (TCIR) and Days Away from Work and Restricted/Transfer cases (DART) rate that was below the 2004 Bureau of Labor Statistics industry average. Their 2005 TCIR was 0.0 compared to the BLS rate of 3.4 for this type of industry. Their 2005 DART was 0.0, and compares favorably to the BLS industry rate of 1.6.

The Michigan SHARP Program requires a comprehensive consultation visit, and the correction of all serious workplace safety and health hazards," said Yoder. "The Huntsman Marysville facility has developed a safety and health system that provides outstanding protection for their workers."

### Creating a Safety Structure

The company has an excellent safety and health management system in place, which incorporates each of the seven required elements: Hazard Anticipation and Detection; Hazard Prevention and Control; Planning and Evaluation; Administration and Supervision; Safety and Health Training; Management Leadership; and Employee Participation. The MIOSHA evaluation team consisted of **Joe Barela**, Onsite Senior Safety Consultant, and **D.W. Johnson**, Onsite Senior Industrial Hygienist.



*The Huntsman Marysville plant celebrated receiving the prestigious SHARP Award—and their outstanding record of two years without a lost time accident!*

Some of the plant's best practices include:

- An exemplary Process Safety Management program;
- An active safety committee;
- A behavior-based safety system with 24 trained observers;
- Goals to conduct and evaluate 64 - 72 safety observations per month;
- An Active Response Tracking system to follow-up on safety action items, and
- Top management involvement in annual EH&S planning sessions and council meetings.

**CHAMPS** (Creating Habits Assuring Marysville's Personnel Safety) is the name for the safety process, Behavioral Accident Prevention Process (BAPP), used at the Marysville facility. It provides a structure to identify at-risk behaviors and conditions. They gather data through observations and use it to address at-risk conditions and behaviors before an accident or injury happens. This process works because it involves everyone, working together to increase safe behaviors and reduce at-risk behaviors.

Huntsman Corporation, headquartered in The Woodlands, Texas, is a global manufacturer and marketer of differentiated and commodity chemicals. Its operating companies manufacture products for a variety of global industries including chemicals, plastics, automotive, aviation, textiles, footwear, paints and coatings, construction, technology, agriculture, health care, detergent, personal care, furniture, appliances and packaging. Originally known for pioneering innovations in packaging and, later, rapid and integrated growth in petrochemicals, Huntsman today has 15,000 employees and 78 operations in 24 countries. The Company had 2005 revenues of \$13 billion. ■



*MIOSHA Acting Director Martha Yoder presented the SHARP Award to Doug Montgomery, President, United Steelworkers (USW) of America International Union, Local 2-004.*

# Hexavalent Chromium Exposure

## Settlement Agreement Provisions Offered to Michigan Employers

By: **Adrian Z. Rocskay, PhD**  
*Safety and Health Manager*  
 General Industry Safety & Health Division

Provisions of the settlement agreement on hexavalent chromium between the federal OSHA and the Surface Finishing Industry Council (SFIC) will be offered to Michigan employers through a MIOSHA agreement. The settlement agreement, signed on October 25, 2006, settles SFIC's challenge to OSHA's standard for occupational exposure to hexavalent chromium.

The MIOSHA program will offer Michigan employers those provisions of the settlement agreement that govern an employer's compliance with the hexavalent chromium standard. The OSHA standard was adopted by reference by



Chrome-plating operations, like this dip tank, may expose workers to hexavalent chromium.

MIOSHA on August 7, 2006, in Part 315, Chromium (VI) in General Industry.

### The MIOSHA Agreement

The main feature of the OSHA settlement agreement, and the comparable MIOSHA agreement, is that the employer must implement engineering controls on an expedited schedule, by December 31, 2008, but will have relief from certain respirator requirements in the interim.

Facilities can opt into the MIOSHA agreement by filling out the *Declaration of Participation Form*. The form can be found on the MIOSHA website, [www.michigan.gov/miosha](http://www.michigan.gov/miosha). The employer can also request a copy by calling the General Industry Safety and Health Division at 517.322.1831.

The MIOSHA agreement on hexavalent chromium contains provisions for engineering controls, a written compliance plan, exposure monitoring, respirator use, and employee information and training. To qualify for the agreement, the

employer must meet the eligibility criteria and deadlines. The agreement will run from January 3, 2007, to May 31, 2010. The terms, deadlines, and eligibility criteria are detailed on the *Declaration of Participation Form*.

### Accelerated Implementation of Engineering Controls

By signing the *Declaration of Participation Form*, the employer agrees to an accelerated implementation of engineering controls. The employer agrees that by December 31, 2008, it will implement feasible engineering controls to reduce hexavalent chromium levels at its facility to or below the 5 g/m<sup>3</sup> permissible exposure limit (PEL).

For employers not in the agreement, the engineering controls must be implemented by May 31, 2010. In fulfilling this obligation, the employer may select from the engineering and work practice controls listed on the *Declaration of Participation Form* or adopt any other controls.

### Compliance Plan and Exposure Monitoring

Employers in the MIOSHA agreement will prepare, and update as required, a written compliance plan setting forth the specific control steps being taken to reduce employee exposure to or below the PEL by December 31, 2008. In addition, the employer

will make an initial exposure determination. The employer can use either the procedures for personal breathing zone air samples or the performance-oriented option.

Thereafter, the employer will conduct periodic monitoring in accordance with the "Scheduled Monitoring Option." The employer agrees that, upon request, compliance plans or monitoring results will be provided to MIOSHA, affected employees, and employee representatives.

### Respirator Use

The respiratory protection provisions of the hexavalent chromium standard will apply to the employers in the MIOSHA agreement. The exception is that prior to December 31, 2008, for employers that are abiding by the terms of the agreement, MIOSHA will enforce those respiratory protection provisions only for employees who fall into one of the following six categories:

1. Employees who are exposed to hexavalent chromium in excess of the PEL while

performing certain metal-finishing activities. These activities are hexavalent chromium chemical additions, hexavalent chromium preparation and mixing, hexavalent chromium tank cleaning, or hexavalent chromium painting operations.

2. Through November 30, 2007, employees whose exposures to hexavalent chromium exceed a "respirator threshold" of 20 g/m<sup>3</sup> (measured as an 8-hour TWA).

3. Beginning December 1, 2007, employees whose exposures to hexavalent chromium exceed a "respirator threshold" of 12.5 g/m<sup>3</sup> (measured as an 8-hour TWA).

4. Employees who are exposed to hexavalent chromium and request a respirator.

5. Any other employees who are required by the employers to wear a respirator.

6. Employees with exposures for which respirators were required under the previous hexavalent chromium standard (in Part 301, Air Contaminants) and any other employees covered by respirator programs in effect on May 30, 2006.

### Employee Information and Training

Employees will be trained pursuant to the hexavalent chromium standard. In addition, the employer agrees to train employees in the provisions of this MIOSHA agreement by June 29, 2007. The training regarding this agreement shall be provided in a language the employees can understand.

### Other Requirements of the Standard

The employer's participation in the MIOSHA agreement on hexavalent chromium does not affect its responsibility to comply with other paragraphs of the standard. Therefore, the employer must still comply with the hexavalent chromium standard's provisions for regulated areas, protective work clothing and equipment, hygiene areas and practices, housekeeping, medical surveillance, and recordkeeping.

### Eligibility Criteria

An employer's facility is eligible to become a participant in the MIOSHA agreement if the employer is a member of SFIC or the facility is a surface-finishing or metal-finishing job shop that sells plating or anodizing services to other companies. The facility must be within the jurisdiction of MIOSHA.

### Deadlines

Declarations must be received by MIOSHA or be postmarked on or before **April 30, 2007**. Completed declarations must be mailed to: John Brennan, Division Director, General Industry Safety & Health Division, MIOSHA Program, 7150 Harris Drive, P.O. Box 30644, Lansing, MI 48909-8144; or faxed to: 517.322.6353. ■

# How Can We Stop the Falls?

By: Paul J. Wrzesinski  
Safety Section Supervisor  
Construction Safety & Health Division

## How Dangerous Are Falls?

The construction industry is one of the most hazardous industries in Michigan—and falls are the single leading cause of accidents and fatalities in this industry. Only about four percent of Michigan's workforce is employed in construction—however, construction fatalities account for nearly 50 percent of all fatal workplace accidents.

In 2005 MIOSHA investigated nine fall-related construction fatalities. As a result, MIOSHA initiated an extensive awareness campaign to alert construction employers to the need for appropriate fall protection and training for employees exposed to fall hazards.

In 2006, there were 10 fatalities caused by falls. Because of the high rate of injuries and fatalities related to fall hazards, reducing these hazards continues to be a focus in the MIOSHA five-year Strategic Plan.

## Who Is Exposed?

Once construction work has started, every employee on the site is required to be protected from fall hazards. This requirement includes all tradesmen, supervision, and even employees inspecting or evaluating work being performed for compliance with the requirements of contracts.

New employee may be at greater risk. These workers are not as experienced and may want to show that they are willing and able to do the job. As a result, new workers may unknow-

ingly put themselves or others in harm's way.

## What Can Employers Do?

Make protecting workers a priority! Incidents caused by falls can be anticipated and prevented. MIOSHA rules address a variety of fall-related hazards and require construction employers to protect employees exposed to fall hazards.

First, employers need a comprehensive, well-maintained *Accident Prevention Program* that includes rules to address fall hazards and training for supervisors and employees. (See *Construction Standard Part 1, General Rules*.) Proper training and consistent work rules reduces the potential for accidents.

Second, *Construction Part 45, Fall Protection*, sets requirements for training and fall protection, including: guardrail systems, safety net systems, personal fall arrest systems, alternative fall protection measures, and/or fall protection plans.

Third, the employer must inspect construction sites for compliance with MIOSHA rules and training requirements. Physical inspections, pre-task analysis (Job Hazard Analysis), post testing, and even practical exercises are tools that can be used to evaluate training and employee retention.

Many proactive companies set up systems that recognize employees who work safely. These companies also establish accountability systems to address non-compliance. Some contractors identify new employees with some type of visual aid, like a stripe or different color hardhat, to alert others that someone who may not have extensive experience or knowledge is present on the jobsite.

## What Can Employees Do?

Workers have a very role. Workers must communicate to employers when fall hazards are created or encountered, so the employer can have them corrected. When fall protection is required, workers and employers need to work together to understand how the system is to be installed, used, and maintained.

When a problem or deficiency is identified, workers may become one of the "problem solvers." They need to be committed and understand that an accident has a tremendous impact—not only in their lives, but also for everyone working with them. A serious injury or fatality affects everyone on the jobsite.

## What Are The Results?

Companies often go above and beyond MIOSHA standards—which is a testament to the benefits of the hard work and commitment necessary to provide a safe and healthy workplace. One of these companies is Walbridge Aldinger, who was awarded the CET Gold Award in 2006 for an outstanding safety and health record.



Fall protection system used by Walbridge workers during the erection of structural steel.

The desire for safety excellence was also a motivating factor in their partnership with MIOSHA during construction of the largest sinking caisson in the world. The formal partnership was signed Jan. 12, 2005, and to date there has not been one lost-time accident on the project!

Their workers demonstrate the kind of dedication and enthusiasm that holds this company and their subcontractors to an extremely high level when it comes to protecting workers. Walbridge Aldinger has highly committed people in their safety department. These individuals work diligently to protect all workers on their projects. This is evident in the policies they have developed and implemented, as well as the safety and health record they have achieved.

## Walbridge Aldinger Case Study

As a part of their safety program, Walbridge Aldinger is continually looking at the newest and best safety equipment on the market. With so many different styles of harnesses, lanyards, and personal protective equipment (PPE) in the marketplace, Walbridge attempts to find the most comfortable and user-friendly equipment available.

PPE is field tested by trades workers to determine if it meets and stands up to their expectations for durability and comfort. This includes fall protection, eye protection, safety vests, etc. The outcome is that Walbridge Aldinger's employees truly feel they are a significant part of a world-class safety program and they take pride in the fact that they have a say in the equipment the company purchases.

Cont. on Page 19



Fall protection system developed to protect workers on the Walbridge Kuhn Drain project.

# Problem Solving: A Systems Approach

By: *Quenten Yoder, Safety Consultant  
Consultation Education and Training Division*

Every workplace has a unique personality—and a unique way of organizing their work environment. You can visit two companies in the same industrial park, utilizing the same equipment and material to manufacture similar products—and each company will be distinctly different in the way it is organized and managed.

Likewise, they are different in how they deal with change and problem solving. Solving problems in companies, large or small, is not easy. Organizations that do it well have found a system for identifying and addressing system issues that works for them.

## Hutchinson FTS “8D Method”

Over the years I have seen many different approaches. One stands out as an excellent example of an effective process and incorporates problem solving within the system of the organization.

For a number of years, I have worked with a small division of a large international company, Hutchinson, FTS, located in Quincy. This has included conducting a wide variety of safety programs for their company, including lockout, powered industrial trucks, supervisor responsibilities, etc. as well as periodic hazard surveys.

About 12 years ago, I stopped in for a routine follow-up visit. When I met with my contact, the Human Resources Director, she expressed concern with a corporate directive instructing the plant to start using a “systematic approach” for the investigation of

all workplace accidents. The new directive required the plant to use an “8D Method” for determining the root cause of accidents.

My contact was worried that this new “8D Method” would take too much staff time. Originally, this method was designed to uncover problems related to quality and productivity concerns, and today approaches like this in various guises are quite common. At the time, however, I was not familiar with the “8D Method.” The plant had a training scheduled the following Saturday for all associates and I asked if I could attend. It turned out to be a Saturday well spent!

Several months after the training I revisited the plant and asked how implementation of the “8D Method” was progressing. Her response was very positive. She had started on the line 25 years ago, and had worked her way up to management. After all that time, she was surprised there was so much going on she didn’t know about. She was impressed with the wealth of specific information the “8D Method” generated.

## A Systems Approach to Accidents

After hearing this site’s positive experience, I was compelled to share information on systems approaches for safety and health problem solving with other Michigan workplaces. I revisited my notes from the training and designed a workshop on accident investigation based on this process.

The heart of the process is based on several overlapping principals.

- First, if all systems are functioning optimally, accidents and illnesses will not occur.
- Secondly, all systems are interrelated.

■ And, third, if systems conflict, the effectiveness of all impacted systems will be compromised.

In order to function, an organization must develop systems and procedures in order to carry out its mission. Some systems are written and documented. Others are informal, known to relatively few people and arise from the process of implementing the formal sys-

tems and procedures.

In the safety arena we often deal with these informal systems/procedures. Frequently, this informality directly contributes to illnesses and injuries. First we must ask, “What system(s) do we have in place related to safety and health concerns?” And, “Does this system address all aspects of the job or process?” Further, “How much can we allow an individual to improvise and still maintain our safety, quality and production objectives?”

The most critical principle to recognize is the interrelatedness of actions and outcomes between systems, and what happens when there is conflict between systems. When there is conflict, one system will fail.

For example, a worker takes short cuts, removes a guard or engages in a like activity that results in an injury or illness. The reason for this is frequently a genuine desire to get the work done, enhance performance or to streamline the job. This is a classic case of system conflict.

In this example, there are several systems to consider:

- Was the training system at fault? Did the employee not receive adequate training on the duties, hazards, and safeguards of the job?
- Was the supervisory system at fault? Was the supervisor not monitoring, or worse, encouraging shortcuts to meet other system needs (production).
- Was it a process/system engineering problem? Was the workflow awkward or difficult, causing the employee to try to find a fix?

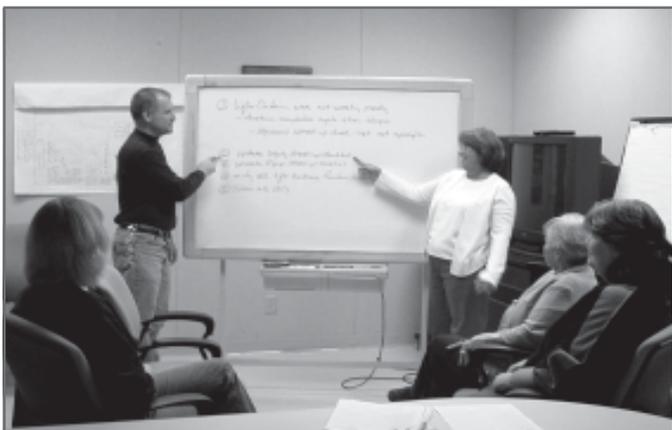
To truly address this example and learn why the employee took the action, it is necessary to identify and review all of the affected systems and the interaction between the components of these systems.

## The Toyota Way

When systems conflict, the effectiveness of all impacted systems will be compromised. Last year I was part of a MIOSHA review team that was evaluating Herman Miller of Spring Lake that had applied for our MVPP award. They subsequently received this award.

During this audit one of the supervisors recommended a book, *The Toyota Way*, by

*Cont. on Page 18*



*Hutchinson FTS uses the “8D Method” for safety solutions. (Standing) Brad Mynhier, Operations Manager; Brenda Henson, H/R Administrator; (Sitting) Robin Kratzer, Set-up; Tonya Gier, Materials Manager; and Barbara Hukill, Customer Service Supervisor.*

# ISOCYANATE EXPOSURE IN CONSTRUCTION

By: Jeff Silva, Senior Industrial Hygienist  
Construction Safety and Health Division

In recent years the MIOSHA program has focused a significant amount of attention and resources to address hazards associated with exposure to isocyanates in the general industry work environment. This is evident in the "Spray-On Truck Bedliner" initiative and seminars, and ongoing work in the development of a diisocyanate standard.

What is not commonly discussed is the use of such materials in the construction industry. Through recent enforcement activity we have discovered that personnel in the construction industry are similarly exposed during the course of their work. This article will cover the various uses of isocyanates in construction, the hazards presented by the use of such materials, and the measures that can be implemented to protect employees.

## Uses of Isocyanate-Containing Materials

Isocyanates are compounds that contain the isocyanate group (-NCO). When mixed with alcohol (hydroxyl) groups, they react to form polyurethane polymers. Construction materials that contain such polymers include spray-on insulation, sound proofing materials, polyurethane paint systems, caulks/sealants, waterproofing agents, adhesives, and concrete patching/repair.

Typically, most isocyanate-containing materials consist of two parts that are mixed, whereupon they react to form the desired product. However, it is important to realize that not all isocyanate-containing materials consist of two parts. For example, aerosol-insulating foams (typically used to seal and insulate small openings and seams around electrical wall outlets and window frame openings) react upon exposure to air to form a polyurethane product.

## Isocyanates Exposure Hazards

Employee exposure to isocyanates can result in both acute, and chronic long-term serious health effects. Isocyanates are irritating to the eyes and mucous membranes, and are known to sensitize the respiratory system. Excessive, short term exposures can result in increased respiratory secretions, edema (i.e., swelling and accumulation of fluid), and painful respiration, all of which if severe enough can result in decreased pulmonary function due to increased airway resistance.

Chronic, long term exposure can also result in decreased lung function, eventually leading to the sensitization of the respiratory system and the development of occupational asthma. Once sensitized, even low-level exposure can result in a severe life threatening immune system response

and severe asthmatic type reaction.

Currently, employee exposure to isocyanates in the construction industry is regulated by Construction Standard Part 601, Air Contaminants. The ceiling limit (C), or that concentration to which an employee's exposure should never exceed, regardless of the length of exposure, is 0.2 mg/m<sup>3</sup> for methylene bisphenyl isocyanate (MDI) and toluene 2,4-diisocyanate (TDI). The eight-hour maximum allowable exposure limit (MAC) for methyl isocyanate (MIC) is 0.05 mg/m<sup>3</sup> and it carries a skin notation. This means the employer must ensure that precautions are taken to prevent skin absorption.

It should be recognized that exposure to many monomeric and polymeric isocyanate compounds are not currently regulated by a specific MIOSHA exposure limit in Part 601. In these situations, the employer is expected to comply with the recommended exposure limits from the manufacturer, the National Institute of Occupational Safety and Health (NIOSH) or the American Conference of Industrial Hygienists' Threshold Limit Value (TLV), whichever is more stringent. These alternative exposure limits should be listed on the product's Material Safety Data Sheet (MSDS).

## Methods of Exposure Control

Given this information, what measures can you implement to safely protect your employees? The simplest method is to eliminate the hazard through the substitution of materials that do not contain isocyanates. However, because of the unique and desirable chemical properties that isocyanates possess, this is typically not feasible.

Unfortunately, other than the construction and general industry air contaminant rules, there are no MIOSHA safety and health regulations that specifically address and regulate the use of isocyanates in the workplace. Therefore, the employer must develop a health and safety program to address the use of such materials in the workplace. An effective health and safety program will include the following elements.

### Exposure Assessment

It is difficult to protect personnel and implement an effective health and safety program without evaluating potential exposures. Therefore, an exposure assessment (typically exposure air monitoring) should be conducted to determine potential employee exposures during representative work operations.

Because of the reactive nature of isocyanates, any air monitoring data that is generated during such activities should be closely scrutinized. Many factors can affect the results obtained, and it is not uncommon to have air sampling results that underestimate actual exposures

in the workplace.

### Engineering/Work Practice Controls

In the construction work environment it can be especially challenging to develop and implement engineering/work practice controls that effectively eliminate or reduce potential employee exposures to isocyanates. Such controls can include the use of local and general exhaust ventilation systems, and the implementation of controlled access work areas/zones.

Because most isocyanate-containing materials are aerosolized during their application, the



*Isocyanate Exposure in Construction.*

use of such controls is intended to isolate the work operations to protect others from inadvertent exposure in the work area. Other work practice controls include ensuring that all containers are tightly closed when not in use, and materials are stored, mixed, and applied in accordance with the manufacturer's recommendations.

### Respiratory Protection/PPE

While respiratory protection has traditionally been considered the last means of defense when protecting employees against chemical exposure in the workplace, the construction work environment is unique in that respiratory protection is often the only means of effectively protecting employees against such exposure.

However, we often observe the ineffective use of respiratory protection during work operations involving the use of isocyanate-containing materials. Often personnel relying on such protection have been inadequately trained (or not trained at all), have not been medically evaluated as to their ability to wear a respirator, or have utilized respiratory protection that was in-

*Cont. on Page 19*

# CET Grants for 2007

\$1.15 Million in Grants Provides Training to Protect Workers in High-Hazard Industries

By: *Louis Peasley*  
 CET Grants Administrator

On Oct. 6, 2006, DLEG Director **Robert W. Swanson** announced 20 Consultation Education and Training (CET) Grants for Fiscal Year 2007 totaling \$1.15 million to promote worker safety and health.

“Smart employers today recognize that providing a safe and healthy work environment is one of the most effective ways to increase profits,” said Swanson. “This \$1.15 million investment in Michigan’s working men and women provides a powerful tool to help employers protect their most valuable asset—their workers.”

### Three Companies Host CET Grants Events

Director Swanson made the announcement at the three companies that have benefitted from CET Grant training services.

**Northern Falls, LLC**, of Grand Rapids, received training from the **Retail, Wholesale and Department Store Union (RWDSU)**. Northern Falls President **Greg McNeil** hosted the announcement and provided a tour of their plant.

“The dangers facing employees in the food processing industry include repetitive motion injuries, improper lifting techniques and hearing disorders,” said **Randy Belliel**, RWDSU Regional Director. “It is critical that members and employers receive prevention and awareness training in these areas, as well as establishing in house health and safety committees. Our program also targets Hispanic employees and provides the necessary materials in Spanish.”

The **Eaton County Medical Care Facility**, Charlotte, received training from the **Lansing Area Safety Council**. Facility Director **Martha**

**Richard** hosted the grant announcement and provided a tour to attendees.

“We are delighted to participate in the CET Grant program. The grant helps us provide vital training to healthcare workers in long-term care facilities that they couldn’t otherwise provide,” said **Susan Carter**, Executive Director, Lansing Area Safety Council. “Statewide last year, we were able to train more than 4,800 healthcare workers.”

Mack Alter Square Developers **Michael Curis** and **Mark Thomas** hosted the grant announcement. **Mack Alter Square**, Detroit, received services from the **Warren Conner Development Coalition’s Partnership for Economic Independence**. Detroit city officials participated in the event.

“Warren Conner Development Coalition’s mission is to act as a catalyst to improve the quality of life on Detroit’s Eastside,” said **Maggie DeSantis**, WCDC Executive Director. “Through the CET Grant program, we are able to provide vital services to emerging businesses in our Eastside neighborhoods—which in turn help us shape our community so that all residents can thrive.”

### The CET Grant Program

The Consultation Education and Training (CET) Division provides outreach services to employers in a variety of formats. The CET Grant program provides additional options for safety and health education and training to employers and employees. Most of the grants will focus on the performance goals identified in the MIOSHA strategic plan, with a particular emphasis on hazard recognition and prevention for high-hazard manufacturing industries.

The 20 statewide projects will include a wide range of training activities and proficiency levels, and many will offer interactive computer-based training modules. Strategic training topics



*Fred Jimenez, RWDSU Grant Coord.; Greg McNeil, Northern Falls President; Randy Belliel, RWDSU VP & Reg. Dir.; Bob Swanson, DLEG Dir.; Martha Yoder, MIOSHA Dir.; Doug Kalinowski, DLEG Deputy Dir.; Steve Mooser, RWDSU HS Dir.; Louis Peasley, CET Grant Adm.*

include: ergonomics; emergency planning, response, and recovery; workplace violence prevention; firefighter rescue; food processing; Spanish-speaking initiatives; long-term care issues; asbestos awareness; trenching safety; road construction; fall protection; and construction onsite walkthroughs.

“Protecting workers is the mission of the MIOSHA program. Working collaboratively with these 20 organizations, we can maximize our safety and health efforts,” said MIOSHA Acting Director **Martha Yoder**. “Our outreach efforts to prevent injuries and illnesses are greatly expanded by our CET Grant partners.”

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

For many years the CET Grants have increased the awareness of safety in the workplace. The FY 2007 CET Grants continue MIOSHA’s commitment to greater training of safety practices and fewer workplace injuries.

### Fiscal Year 2007 CET Grant Projects

**Alpena Community College** will deliver targeted safety training in the high-hazard industries of construction, machinery manufacturing, and wood products manufacturing. This proposal incorporates high-hazard industry training, primarily with smaller employers.

**Associated General Contractors, Michigan Chapter** will deliver an interactive computer based training program for the construc-



*Mack Alter Square developers Michael Curis and Mark Thomas hosted the CET Grants announcement. CET Grantee Warren Conner Development Coalition provided them with economic independence services.*

tion industry. The program is designed to provide easy access to 14 standardized modules, including: Asbestos Awareness, Confined Space, Electrical Safety, Fall Protection, Fire Safety, Hazard Communication, Personal Protective Equipment, Trenching and Shoring, and Scaffold Safety.

**Bay De Noc Community College** will provide safety training and technical assistance to owners and employees in the wood products industry through on-site visits with an emphasis in sawmills and secondary wood manufacturing.

**Center for Workplace Violence** will develop training and instructional videos in Emergency Management and Workplace Violence. Training sessions will focus on emergency response capabilities.

**Eastern Michigan University Organization for Risk Reduction** will offer an asbestos awareness course on the nature of asbestos, health affects of exposure, identification of asbestos containing materials, and the MIOSHA General Industry and Construction Standards for Asbestos.

**Lansing Area Safety Council** will schedule safety training statewide in long term care facilities. Topics include: blood borne pathogens, tuberculosis awareness, ergonomics, slips, falls, hazard communication, and safe lifting and transfer of patients.

**MARO (Michigan Association of Rehabilitation Organizations)** will provide training to rehabilitation organizations and their staff with disabilities. Training will be presented in two formats: customized on-site and a computer-based program. DVD's will be developed for training in conjunction with on-site consultation.

**Michigan AFL-CIO** will deliver generic and customized workplace safety and health training to new and incumbent employees on a wide variety of topics, including confined space training, back safety, chemical safety, and ergonomics.

**Michigan Association of Chiropractors** will deliver back safety and ergonomics training to workers in nursing homes, manufacturing, and construction industry.

**Michigan Construction Trades Safety Council** will produce a CD "MIOSHA Walkthrough for Construction Training CD-ROM." This interactive CD will be made available to over 120,000 construction companies throughout Michigan.

**Michigan Farm Bureau** will provide on-site and classroom safety and health training for farmers, focusing on pesticide training and injury response management.

**Michigan State University School of**



*Louis Peasley, MIOSHA; Martha Richard, Eaton County Medical Care Facility; Doug Kalinowski, DLEG; Suzy Carter, Lansing Area Safety Council; Bob Swanson, DLEG; and Martha Yoder, MIOSHA.*

**Criminal Justice** will offer a train-the-trainer Rapid Intervention Course for firefighters and a firefighter survival course.

**Michigan Urban Search & Rescue Foundation (MUSARF)** provides training to contractors engaged in trenching excavation, to construction workers involved in this type of work, and fire service personnel providing services during trenching and excavation.

**Michigan Infrastructure and Transportation Association (MITA)** will develop specialized company training sessions and statewide conferences to reduce injuries in the road construction industry.

**Parents for Student Safety Employment Standards (PASSES)** works with high schools to provide construction technology classroom training, utilizing the web-based PASSES curriculum. PASSES has organized district wide safety committees that assist with the program.

**Retail, Wholesale, and Department Store Union (RWDSU)** will focus on health and safety injury prevention training in food processing facilities through safety and health committees.

**SE Michigan Coalition for Occupational Safety and Health (SEMCOSSH)** will offer basic safety and health training for Spanish-speaking immigrant workers. Specific areas include basic first aid, hearing protection, and PPE.

**United Auto Workers (UAW)** will provide workplace safety and health training to industries with fabricated metal, stone, clay, and concrete products. The training will include a facility walkthrough and hazard evaluation followed by hazard prevention training.

**University of Michigan** has developed and will deliver on-site customized ergonomics job analysis, follow-up activities to document changes and development to small and medium-sized companies. Scholarships to attend a two-day open enrollment course will also be provided.

**Warren Conner Development Coalition** provides workplace violence prevention for employers and employees in small service sector businesses. ■

## UBC Alliance

MIOSHA Acting Director, Martha Yoder, signed a new alliance during the annual OSHA Family meeting, on July 14, 2006. Other signatories included OSHA Region V representatives, State Plan representatives, and Dale Kukowski, President of United Building Centers.

**United Building Centers (UBC)** have diverse operations that include two general industry facilities that manufacture construction materials, building crews that construct buildings, and distribution centers where they sell the construction materials that they manufacture.

This alliance will provide UBC employees and affiliated contractors with information, guidance, and access to training resources that will help them protect employees' health and safety. The alliance has the potential to impact 31 UBC locations within Michigan, with 600 employees.

### Safety and Health Goals

MIOSHA/OSHA and UBC will work together to achieve the following training and educational goals:

- Provide expertise to develop training and educational programs for UBC employees and affiliated contractors regarding safety and health hazards.

- Address the specific areas of material handling and musculoskeletal disorders; Hispanic training; and falls, trips, and slips.

- Deliver educational sessions to increase hazard recognition and safety awareness for UBC employees and affiliated contractors in the building trades.

The MIOSHA Consultation Education and Training (CET) Division will begin participating in a series of teleconferences with all partners to assist in the development of strategies for achieving the goals of the alliance.

To obtain more information about MIOSHA alliances, go to [www.michigan.gov/miosha](http://www.michigan.gov/miosha) and click on "Alliances and Partnerships." ■



*Wes Hohl, Ohio Consultation; Dale Kukowski, UBC President; Michael Connors, OSHA Region 5 Administrator; Martha Yoder, MIOSHA Director.*

# Definition of “Working Day”

By: *Bob Pawlowski, Director*  
*Construction Safety and Health Division*

Under Authority of the Michigan Occupational Safety and Health (MIOSH) Act, Act 154 of 1974, as amended, the MIOsha program has established procedures for settling cases where citation(s) have been issued.

These procedures are explained in greater detail in the explanatory pages that are provided with every *Citation and Notification of Penalty* that is issued by MIOsha.

## Responding in a Timely Manner

There are three stages at which a MIOsha case can be settled that are governed by statutory time limits. Two options open to employers that are handled by the issuing MIOsha division are the: *Informal Settlement Agreement (ISA)* and the *First Appeal*. The employer and issuing division must complete an ISA within 15 working days from receipt of the citation. If the ISA process can be completed within 15 working days from receipt, then no appeal need be filed.

If the employer chooses to file a First Appeal, the appeal must be in writing and must be postmarked within 15 working days from receipt of the citation. Once the issuing division receives the First Appeal, the issuing division must respond to the employer within 15 working days of the postmark on the First Appeal.

The third stage is the *Second Appeal*. If the employer is not satisfied with the division’s response to the First Appeal, the employer has 15 working days to file the Second Appeal.

It is important that the employer clearly understand the meaning of the term “working day” or “workday,” so an appeal can be filed in a timely manner.

## Defining “Working Day” or “Workday”

The MIOsh Act, Section 6 (9) defines “**working day**” or “**workday**” as any day other than a Saturday, Sunday, or State Legal Holiday.

The state legal holidays are defined in Michigan Compiled Laws, Section 435.101 as:

- January 1, New Year’s Day;
- The third Monday in January, Martin Luther King, Jr. Day;
- February 12, Lincoln’s birthday;
- The third Monday of February, Washington’s birthday;
- The last Monday of May, Memorial or Decoration Day;
- July 4, Independence Day;
- The first Monday in September, Labor Day;
- The second Monday in October, Columbus Day;
- November 11, Veterans’ Day;
- The fourth Thursday of November, Thanksgiving Day;
- December 25, Christmas Day.

## Computing the Days

Please note that whenever January 1; February 12; July 4; November 11; or December 25 fall on a Sunday, the next Monday following is deemed a public holiday (non-working day) for appeal purposes. However, there is no compensating day when one of the five dated holidays falls on a Saturday.

Also, when computing the 15 working days, you do not count the date that it is received; you start with the next working day. Additionally, the count is based on when the citation was received at the employer’s location, not when it got to any particular person or office at the employer’s location.

## Information Available

Further information is available on the MIOsha website at: [www.michigan.gov/miosha](http://www.michigan.gov/miosha). ■

# Take the MIOsha Challenge

By: *Connie O’Neill, Director*  
*Consultation Education and Training Division*

The MIOsha Consultation Education and Training (CET) Division is offering a challenge to high-hazard industries. The **Michigan Challenge Program (MCP)** offers employers an opportunity to develop an effective safety and health management system while being granted a **six-month deferral from MIOsha programmed inspections**.

The deferral allows the employer time to:

- Learn the elements of a safety and health management system;
- Identify strengths and weaknesses of their existing program;
- Review accident trends and cost estimates;
- Identify compliance solutions for potential hazards; and
- Receive safety and health training.

It makes good business sense to develop a safety and health system. We know that the direct costs of workplace accidents are nearly \$40 billion each year—and business and industry are paying a staggering \$230 billion annually on workers’ compensation losses.

Michigan companies are beginning to experience lower workers’ compensation rates, in part due to the implementation of safety and health systems. Proactive companies who protect their workers are experiencing positive benefits to their bottom line.

The Challenge Program connects a CET consultant to your company, who will provide the necessary consultation and training. The activities include an injury analysis and accident cost estimation; a hazard survey; an assessment of your safety and health management system with recommendations for improvement; and training for supervisors and safety and health committee members.

An effective safety and health system consists of elements that apply safety and health management practices of employers who have been successful in protecting the safety and health of their employees.

An effective safety and health management system depends on:

- Management Leadership/Commitment
- Employee Involvement/Participation
- Worksite Analysis/Identifying Potential Hazards
- Hazard Prevention and Control/Implementing Policies and Procedures
- Safety and Health Training/For all levels in the organization

The Challenge Program features an agreement signed by the company CEO and the MIOsha CET Division who commit to work together in the assessment, development and implementation of a safety and health system.

The CET consultant will provide comprehensive assistance and training over a six-month timeframe, and will continue to provide follow up consultation and annual audits for two consecutive years. The company may decide at any time during the first six months to withdraw their agreement and request that the program be terminated.

Participating in the Challenge Program will help you seek long-term safety and health solutions, empower employees to participate in the development and implementation process, and integrate the components of a safety and health system into the business operations.

Other benefits may include:

- Lowered workers’ compensation costs due to fewer employee injuries and illnesses;
- Reduction or elimination of property damage due to fewer incidents;
- Reduced turnover of personnel;
- Improved product quality;
- Higher morale of employees;
- Compliance with MIOsha standards.

**Are you ready for the Challenge?** Call the CET Division today at 517.322.1809. ■

# Education & Training Calendar

Date	Course Location	MIOSHA Trainer Contact	Phone
<b>March</b>			
1	Health Issues In Construction Newberry	Jim Dykes Brian White	906.228.2312
6	General Fall Protection Southfield	Patrick Sullivan Ed Ratzenburger	248.557.7010
6 & 7	MIOSHA 10-Hour for Construction Lansing	Tom Swindlehurst Elyse Kopietz	517.323.3254
6, 13 & 20	MIOSHA's Fundamentals of Safety and Health Holland	Micshall Patrick Brian Cole	616.331.7180
7	Fall Protection for Residential Construction Port Huron	Patrick Sullivan Bonnie DiNardo	810.989.5788
8	When MIOSHA Visits Canton	Jennifer Clark Denson Megan Brown	734.464.9957
8	Supervisor's Role in Safety and Health Manistee	Anthony Neroni Shelly Hyatt	231.546.7264
8	Fleet Safety Howell	Karen Odell Janie Willsmore	517.546.3920
13	Ergonomic Principles Warren	Richard Zdeb Holger Ekanger	586.498.4100
13 & 14	MIOSHA 10-Hour for Construction Ann Arbor	Patrick Sullivan Larry Pickel	734.677.5259
14	Ergonomic Principles Battle Creek	Dave Humenick Connie Dawe	269.965.4134
19	When MIOSHA Visits Holland	Deb Gorkisch Brian Cole	616.331.7180
20	Ergonomics: Healthcare Facilities Sault Ste Marie	Barry Simmonds Adult Cont. Ed.	906.635.2802
20	Excavation Hazards and Soil Mechanics Lansing	Tom Swindlehurst Elyse Kopietz	517.323.3254
20 & 21	MIOSHA 10-Hour for Construction Houghton	Jim Dykes Pete Anderson	517.371.1550
21	Powered Industrial Truck Train-The-Trainer Warren	Doug Kimmel Holger Ekanger	586.498.4100
26	Health Issues In Construction Holland	Dave Humenick Brian Cole	616.331.7180
27	Fall Protection for Residential Construction Ann Arbor	Patrick Sullivan Larry Pickel	734.677.5259
27	Avoiding Electrocutation: High Voltage Safe Work Practices Lansing	Tom Swindlehurst Elyse Kopietz	517.323.3254
27, 28 & 29	MIOSHA's Fundamentals of Safety and Health Port Huron	Lee Jay Kueppers Bonnie DiNardo	810.989.5788
28 & 29	MIOSHA 10-Hour for Construction Flint	Patrick Sullivan Pete Anderson	517.371.1550

Co-sponsors of CET seminars may charge a nominal fee to cover the costs of equipment rental, room rental, and lunch/refreshment charges. For the latest seminar information check our website, which is updated the first of every month: [www.michigan.gov/miosha](http://www.michigan.gov/miosha).

**Construction Safety Standards Commission**

**Labor**

- Mr. D. Lynn Coleman
- Mr. Patrick "Shorty" Gleason
- Mr. Gregg A. Newsom
- Mr. Larry Redfearn\*\*

**Management**

- Mr. Donald V. Staley
- Mr. Peter Strazdas
- Ms. Valerie J. Warren

**General Public**

Vacant

**General Industry Safety Standards Commission**

**Labor**

- Mr. Dwayne F. Betcher\*\*
- Mr. William L. Borch
- Mr. Karl E. Heim
- Mr. Jeffrey Radjewski

**Management**

- Mr. Dennis M. Emery
- Mr. Thomas J. Pytlik\*
- Mr. George A. Reamer

**General Public**

Vacant

**Occupational Health Standards Commission**

**Labor**

- Mr. James B. Cianciolo
- Mr. Andrew J. Comai
- Ms. Margaret Robinson Faville
- Chief Ricardo L. Longoria

**Management**

- Mr. David L. Glynn
- Mr. John E. Miller
- Mr. Gary R. Novak
- Mr. Ronald J. Torbert

**General Public**

- Mr. Satyam R. Talati

\*Chair \*\*Vice Chair

# Standards Update

## Part 451, Respiratory Protection – Revisions

Occupational Health Standard Part 451, Respiratory Protection, adopts the federal OSHA Respiratory Protection Standard 29 CFR 1910.134 by reference. The federal rule, amended on August 24, 2006, with an effective date of November 22, 2006, provides new "Assigned Protective Factors" for certain respirators.

Michigan's Part 451 also needs to be updated to make it as effective as the federal OSHA standard. It is anticipated that amendments to the Michigan standard will be finalized by February 2007.

In its final rule, federal OSHA revised its existing Respiratory Protection Standard to add definitions and requirements for Assigned Protection Factors (APFs) and Maximum Use Concentrations (MUCs). The revisions also supersede the respirator selection provisions of existing substance-specific standards with these new APFs (except for the respirator selection provisions of the 1,3-Butadiene Standard). These amendments are available at [www.osha.gov](http://www.osha.gov).

The final APFs provide employers with critical information to use when selecting respirators for employees exposed to atmospheric contaminants found in general industry, construction, shipyards, longshoring, and marine terminal workplaces.

Proper respirator selection using APFs is an important component of an effective respiratory protection program. Accordingly, OSHA concludes that the final APFs are necessary to protect employees who must use respirators for protection from airborne contaminants.

## Governor Appoints New Commissioners

Governor Granholm appointed two new members and reappointed two current Commissioners to the Occupational Health Standards Commission effective October 12, 2006. MIOSHA welcomed them to the Commission at the December 6th meeting.

The Occupational Health Standards Commission consists of nine members and provides rules that establish workplace standards to protect the life and health of workers in Michigan, particularly focusing on health risks such as hazardous chemicals and noise.

### Occupational Health Standards Commission

**James B. Cianciolo** of Woodhaven, president of Teamsters Local Union No. 243. Mr. Cionciolo is appointed to represent labor for a term expiring August 5, 2008. He succeeds Dr. Robert DeYoung who recently served as Commission chair and served for thirteen years.

**Andrew J. Comai** of Ann Arbor, industrial hygienist for International Union, UAW. Mr. Comai is appointed to represent labor for a term expiring August 5, 2008. He succeeds recently elected chair Margaret Vissman whose term has expired and served eleven years.

**Ricardo L. Longoria** of Saginaw, training and safety officer with the Saginaw Fire Department. Mr. Longoria is reappointed to represent public employees of the state for a term expiring August 5, 2008.

**John E. Miller** of Kawkawlin, Bay County Sheriff. Sheriff Miller is reappointed to represent public employers for a term expiring August 5, 2008.

To contact any of the Commissioners or the Standards Section, please call 517.322.1845.

# Status of Michigan Standards Promulgation

(As of January 02, 2007)

## Occupational Safety Standards

### General Industry

Part 05.	Scaffolding (Joint w/GI-58 & CS-32) .....	Draft approved by Commission
Part 08.	Portable Fire Extinguishers .....	Amended, effective 5/15/06
Part 17.	Refuse Packer Units .....	Approved by Commission for review
Part 19.	Crawler, Locomotive, & Truck Cranes .....	Approved by Commission for review
Part 20.	Underhung Cranes & Monorail Systems .....	Approved by Commission for review
Part 58.	Vehicle Mounted Elev. & Rot. Platforms (Joint w/GI-5 & CS 32) .....	RFR approved by SOAHR
Part 62.	Plastic Molding .....	Approved by Commission for review
Part 76.	Spray Finishing .....	RFR submitted to SOAHR
Part 79.	Diving Operations .....	Approved by Commission for review
Pending	Ergonomics (Joint) .....	At Advisory Committee

### Construction

Part 01.	General Rules .....	Approved by Commission for review
Part 02.	Masonry Wall Bracing .....	Approved by Commission for review
Part 12.	Scaffolds & Scaffold Platforms .....	Approved by Commission for review
Part 22.	Signals, Signs, Tags & Barricades .....	Final, effective 11/20/06
Part 26.	Steel Erection .....	Public hearing 9/25/06
Part 28.	Personnel Hoisting in Steel Erection .....	Public hearing 9/25/06
Part 29.	Communication Towers .....	At Advisory Committee
Part 31.	Diving Operations .....	Approved by Commission for review
Part 32.	Aerial Work Platforms (Joint w/GI 58) .....	RFR approved by SOAHR

## Occupational Health Standards

### General Industry

Part 301.	Air Contaminants for General Industry .....	RFR approved by SOAHR
Part 315.	Chromium (VI) for General Industry .....	Final, effective 8/7/06
Part 316.	Diisocyanates .....	RFR approved by SOAHR
Part 451.	Respiratory Protection .....	Draft rule approved by SOAHR
Part 504.	Diving Operations .....	Approved by Commission for review
Part 526.	Open Surface Tanks .....	RFR submitted to SOAHR
Part 528.	Spray Finishing Operations .....	RFR submitted to SOAHR
Part 529.	Welding, Cutting & Brazing .....	Approved by Commission for review
Pending	Ergonomics (Joint) .....	At Advisory Committee
Pending	Latex .....	At Advisory Committee

### Construction

Part 601.	Air Contaminants for Construction .....	RFR approved by SOAHR
Part 604.	Chromium (VI) for Construction .....	Final, effective 8/7/06

The MIOSHA Standards Section assists in the promulgation of Michigan occupational safety and health standards. To receive a copy of the MIOSHA Standards Index (updated March 2006) or for single copies and sets of safety and health standards, please contact the Standards Section at 517.322.1845, or at [www.michigan.gov/mioshastandards](http://www.michigan.gov/mioshastandards).

RFR Request for Rulemaking  
 SOAHR State Office of Admn. Hearings and Rules  
 LSB Legislative Services Bureau  
 JCAR Joint Committee on Administrative Rules

# WEB Update

## Comparison Documents Now on the Standards Web Pages

By: Christine Hundt, Departmental Analyst  
MIOSHA Standards Section

The MIOSHA Standards Section regularly gets telephone calls from customers asking if there are documents available comparing Michigan Occupational Safety and Health Standards to Federal Occupational Safety and Health Standards. **We can now tell our customers, YES!!**

A total of 35 comparison documents have been completed and loaded onto the website so far, with more expected in the near future. In the General Industry Safety Standards, 26 comparisons are available; and in the Construction Safety Standards, 18 comparisons are available.

These include some of the standards that are most commonly cited: Construction Safety Standards Part 6, Personal Protective Equipment; Part 9, Excavation Trenching and Shoring; Part 12, Scaffold and Scaffold Platforms; and General Industry Safety Standards Part 1A, Abrasive Wheels; and Part 2, Floor and Wall Openings Stairways and Skylights.

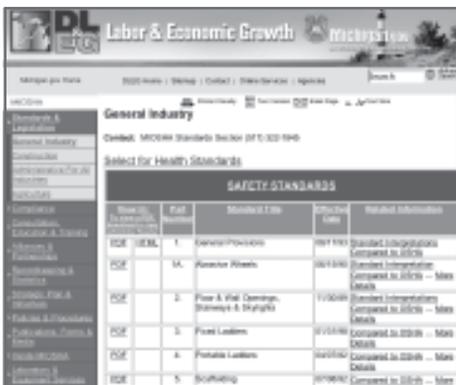
### How to Access the Documents

To access the comparison documents, visit the Standards website at: [www.michigan.gov/mioshastandards](http://www.michigan.gov/mioshastandards). On the top, left side of the page, under "Standards & Legislation," click on either "General Industry" or "Construction."

This brings up a blue and white table that lists the standards by part number and title. On the far right side of this table is a column entitled, "Related Information." In this column are items listed as either "Compared to OSHA" or "Compared to OSHA ... More Details."

When you click on a document listed as "Compared to OSHA," it will give you a quick overview of how that particular MIOSHA standard differs from an OSHA standard. When you click on "More Details," it will give you an actual side-by-side comparison.

For assistance, please contact the MIOSHA Standards Section at 517.322.1845. ■



# Variations

Published January 31, 2007

Following are requests for variances and variances granted from occupational safety standards in accordance with rules of the Department of Labor & Economic Growth, Part 12, Variances (R408.22201 to 408.22251).

### Variances Requested Construction

**Part and rule number from which variance is requested**  
Part 10 - Lifting and Digging Equipment: Rule R408.41015; Rules 1015a (2) (d)(f)(g)(h)(i); 1015a (3); 1015a (4); 1018a (1) (2) (21); 1019a (1); and 1021a (4)

**Summary of employer's request for variance**  
To allow the use of a suspended work platform to hoist or suspend personnel or to provide access to elevated work areas in a manner that exposes employees to the least hazard practicable. Providing all requirements of Con.Safety Standard, Part 10. Lifting & Digging Equip. except Rule 1015a, 1018a, 1019a, and 1021a, are met.

**Name and address of employer**

Hamon Custodis, Inc.

**Location for which variance is requested**

Monroe Power Plant, Monroe

**Part and rule number from which variance is requested**

Part 24 - Tar Kettles: Rule R408.42406, Rule 2406

**Summary of employer's request for variance**

To allow employer to place a Ram rubberized asphalt melter, diesel fired, and diesel powered, on the roof of a building provided certain stipulations are adhered to.

**Name and address of employer**

Schreiber Corporation

**Location for which variance is requested**

J. W. Marriott Hotel, Grand Rapids

**Part and rule number from which variance is requested**

Part 32 - Aerial Work Platforms: Rule R408.43209, Rule 3209; Rule 3209 (8) (b); Rule 3209 (8) (c); Rule 3209 (9)

**Summary of employer's request for variance**

To allow employer to firmly secure scaffold planks to the top of the intermediate rail of the guardrail system for use as a work platform provided certain stipulations are adhered to.

**Name and address of employer**

American Erectors, Inc.

**Location for which variance is requested**

United States Postal Service, Pontiac

**Name and address of employer**

Bristol Steel & Conveyor Corp.

**Location for which variance is requested**

Motor City Casino, Detroit

General Motors Corp - Eng. Consolidation, Pontiac

**Name and address of employer**

Great Lakes Steel Construction, Inc.

**Location for which variance is requested**

United States Postal Service, Pontiac

**Name and address of employer**

John E. Green Company

**Location for which variance is requested**

General Motors Power Train Facility, Pontiac

**Name and address of employer**

J C Jimenez Construction.

**Location for which variance is requested**

MGM Casino, Detroit

**Name and address of employer**

Midwest Steel, Inc.

**Location for which variance is requested**

Detroit Metro Airport, Detroit

### Variances Granted Construction

**Part and rule number from which variance is requested**  
Part 10 - Lifting and Digging Equipment: R408.41005 a(2), Rule 1005 a(2); Reference ANSI Standard B30.5 "Mobile and Locomotive Cranes". 1994 Edition; Section 503.2.1.2b

**Summary of employer's request for variance**

To allow rigging certain loads to the load line of a crane above the overhaul weight in accordance with certain stipulations.

**Name and address of employer**

John E. Green Company

**Location for which variance is requested**

Fowlerville High School, Fowlerville

**Part and rule number from which variance is requested**

Part 32 - Aerial Work Platforms: R408.43209, Rules 3209 (8) (b); 3209 (9)

**Summary of employer's request for variance**

To allow employer to firmly secure a scaffold plank to the top of the intermediate rail of the guardrail system of an aerial lift for limited use as a work platform provided certain stipulations are adhered to.

**Name and address of employer**

Bumler Mechanical, Inc.

**Location for which variance is requested**

Bosch New Office and Lab, Plymouth

**Name and address of employer**

John E. Green Company.

**Location for which variance is requested**

Henry Ford Hospital, West Bloomfield

**Name and address of employer**

Limbach Co., LLC

**Location for which variance is requested**

MGM Grand Casino, Detroit

### Variances Requested General Industry

**Part and rule number from which variance is requested**  
Part 17 - Refuse Packer Units; Rule 1732(1)

**Summary of employer's request for variance**

To allow employer to use interlocked gate with stop bars and uniform trash carts in lieu of the fixed barrier.

**Name and address of employer**

Tawas Industries, Inc.

**Location for which variance is requested**

905 Cedar St., Tawas City, MI 48763

### Variances Granted General Industry

**Part and rule number from which variance is requested**  
Part 17 - Refuse Packer Units; Rule 1732(1)

**Summary of employer's request for variance**

To allow employer to use interlocked gate with stop bars and uniform trash carts in lieu of a fixed barrier.

**Name and address of employer**

Knape & Vogt

**Location for which variance is requested**

2700 Oak Industrial Park Dr NE, Grand Rapids

**Part and rule number from which variance is requested**  
Part 14 - Conveyors

**Summary of employer's request for variance**

To allow employer to use a cable system to secure laundry bags when they are conveyed in lieu of a pan or screen type guard over walkway, passageway or work areas.

**Name and address of employer**

Arrow Uniform Rentals

**Location for which variance is requested**

6400 Monroe, Taylor

# MIOSHA News Quiz

## Topic: Hazard Communication Employee Right-to-Know (RTK)

By: Deborah Gorkisch, Safety Consultant  
Consultation Education & Training Division

### Questions

1. True or False – There are six major areas covered under the Right-to-Know (RTK) standards.
2. True or False – MIOSHA requires only one posting in a worksite related to material safety data sheet (MSDSs).
3. Employee Right-to-Know training shall include:
  - A. Methods and observations to detect the presence or release of hazardous chemicals.
  - B. The physical and health hazards of the chemicals.
  - C. The measures employees can take to protect themselves.
  - D. The details of the employer's hazard communication program, including the labeling system and the MSDSs, and how to obtain and use the information.
  - E. All of the above.
4. True or False – MSDSs must be "readily accessible" to employees in their work area.
5. All RTK Labels must include *at least*:
  - A. Identity of the hazardous chemicals.
  - B. Appropriate hazard warnings.
  - C. Name and address of the chemical manufacturer, importer, or other responsible party.
  - D. A and B.
  - E. All of the above.
6. True or False – Pipes containing hazardous materials must be labeled or identified in a manner that is clear to employees.
7. The written hazard communication program does **not** require:
  - A. A list of hazardous chemicals.
  - B. A MSDS for each chemical.
  - C. A labeling system.
  - D. The National Fire Protection Association (NFPA) hazard identification diamond.
  - E. Employee information and training.
  - F. Methods to inform employees of the hazards of non-routine tasks.
8. True or False – It is solely a chemical manufacturers responsibility to make a hazard determination.
9. True or False – Employee training is only required at the time of their initial assignment.
10. Can a chemical manufacturer, importer or employer, be exempt from providing a specific chemical identity if it is a "trade secret," in an

emergency situation where a physician or nurse determines the specific chemical identity of the hazardous chemical is needed to provide treatment?

- A. Yes
- B. No

11. True or False – At a "multi-employer" worksite, an employer only has to train their employees on the hazardous chemicals that they bring onto the worksite.
12. True or False – An employer is responsible to provide employees information on possible physical and health hazards associated with hazardous chemicals in their work areas.

### Answers

1. True – The Hazard Communication Standards cover six major areas: 1) Hazard Determinations, 2) Labels, 3) Material Safety Data Sheets (MSDSs), 4) Written Program, 5) Employee Information and Training, 6) Trade Secrets.
2. False – MIOSHA requires two postings in a worksite related to MSDSs. Sec. 14(f)(a) requires the location of the MSDSs and the name of the responsible person to be posted. Sec. 14(k)(2) requires that a notice be posted no later than five working days after receipt of a new or a revised MSDS. The posting must remain for 10 working days.
3. E – It is the employer's responsibility to train employees on all of the above subjects per 1910.1200(h).
4. True – Citations can be issued for not having MSDSs readily accessible to employees per 1910.1200(g)(8).
5. D – A and B. 1910.1200(f)(5) requires that each container of hazardous chemicals in the workplace is labeled, tagged or marked with the identity of the hazardous chemical(s) and appropriate hazard warnings or words, pictures, symbols or combination which will provide at least general information regarding the hazards of the chemicals. Manufacturers, importers and distributors must include the name and address of manufacturer, importer or other responsible party. 1910.1200(f)(1).
6. True – Pipes or piping systems in a workplace that contain a hazardous chemical shall be identified to an employee by label, sign, placard, written operating instructions, process sheet, batch ticket or a substance identification. Act 154, Sec. 14(c).
7. D – The NFPA hazard identification diamond
8. False – It is the responsibility of chemical manufacturers, importers and employers to make hazard determinations following the guidelines in 1910.1200(d). This includes reference to mixtures in 1910.1200(d)(5).
9. False – Employers shall train at the time of the initial work assignment, **and** whenever a new physical or health hazard the employees have not previously been trained about is introduced into their work area. 1910.1200(h)(1).
10. B – No. A chemical manufacturer, importer or employer cannot withhold the chemical identity in an emergency situation, but they can require a confidentiality agreement as soon as circumstances permit. 1910.1200(i)(2).
11. False – Employers who produce, use, or store hazardous chemicals at a workplace in such a way that the employees of other employer(s) may be exposed shall ensure that the hazard communication program developed and implemented includes the methods the employer will use to provide the other employer(s) on-site access to MSDSs, understanding of the labeling system and precautionary measures for each hazardous chemical the employer(s) employees may be exposed to while working. 1910.1200(e)(2)(i)(ii)(iii).
12. True – Both physical and health hazards will be covered with employees working with hazardous chemicals. 1910.1200(h)(3)(ii).

### Video Library Relocates

Beginning January 1st the MIOSHA "Safety and Health Video Library" is relocating to Lansing.

The MIOSHA CET Division has more than **130 safety and health videos** available on a free-loan basis in the lending library.

#### To Request a Video:

- Phone: 517.322.2633
- Fax: 517.322.3219
- E-mail: [mioshavidios@michigan.gov](mailto:mioshavidios@michigan.gov)

The "Safety and Health Video Catalog" is available on the MIOSHA website at [www.michigan.gov/miosha](http://www.michigan.gov/miosha), under "Publications, Forms and Media."

## Maco Concrete Fatality

Cont. from Page 1

feet deep and nearly vertical. Magnante and Padot entered the excavation to install forms for footings. The excavation collapsed, partially burying the men. They escaped because the top man saw the side of the excavation failing and warned them of the collapse.

The MIOSHA investigation revealed that Maco Concrete knew of the substantial risk of injury to employees engaged in trenching work, and failed to provide trenching support to prevent injury to their workers. The owner was at the job site and made no effort to protect his employees. Additionally, the company failed to furnish Padot a place of employment free from recognized hazards that were likely to cause death or serious physical harm.

“Construction is a high hazard industry. With only about 4 percent of the workforce, construction accounts for more than 40 percent of the worker deaths each year,” said MIOSHA Acting Director Martha B. Yoder. “In a competitive and time driven industry, it is just not acceptable to cut corners at the expense of worker safety.”

Trench sloping and support systems are required by the MIOSHA Construction Safety Standard, Part 9, Excavation, Trenching, and Shoring. This standard covers the digging of excavations and trenches that an employee is required to enter, and the supporting systems used on construction operations. Part 9 also requires a trained and experienced “qualified person” to evaluate excavation hazards.

### Summary of Violations

The company received a combined total of three alleged willful violations with a proposed penalty of \$99,400; and two alleged serious violations with a proposed penalty of \$4,200, for a total proposed penalty of \$103,600.

The three Willful Serious violations included;

- Excavation Not Properly Sloped/Shored;



The Waterford Township Fire Department, the local police department, and Michigan Urban Search and Rescue responded to the Maco Concrete fatal trench collapse.

- No Ongoing Inspection by Qualified Person;

- No Accident Prevention Program.

A willful violation represents an intentional disregard of the requirements of MIOSHA regulations, or plain indifference to employee safety and health. A serious violation exists where there is a substantial probability that serious physical harm or death can result to an employee.

Under the MIOSH Act, the company has 15 working days from receipt of the citations to comply or contest the violations and penalties.

### Referral to Attorney General

Based on provisions in the MIOSHA Act, Public Act 154, as amended, every willful violation, which is connected to a fatality, is referred to the Michigan Attorney General’s Office for criminal investigation and/or prosecution.

December 19, 2006, Attorney General **Mike Cox** announced that charges were filed against Maco Concrete, Inc. for willfully violating the Michigan Occupational Safety and Health (MIOSH) Act in connection with the death of 41-year-old Jeff Padot on April 23, 2006.

“Employers have a responsibility to ensure the physical safety of their workers. When an employer fails to follow the law and our state’s safety regulations, there must be consequences,” said Cox.

Maco Concrete, Inc. has been charged criminally with willfully violating the MIOSHA requirement that an employer provide a place of employment which is free from recognized hazards that are likely to cause death or serious physical harm to the employee. This offense is a one-year felony and carries a fine up to \$10,000.

A criminal charge is merely an accusation, and the defendant is presumed innocent until and unless proven guilty.

### Help is Available

Because of the recognized higher hazards in excavation and trenching, these work operations are a focus in the MIOSHA five-year strategic plan. MIOSHA is coordinating an awareness campaign to remind employers that employee training is required

– and to provide training opportunities through the Consultation Education & Training (CET) Division.

Companies can contact the CET Division at 517.322.1809 for construction consultation, education and training services. For more information on MIOSHA standards and excavation and trenching hazards, companies can contact the Construction Safety and Health (CSH) Division at 517.322.1856. ■

## Problem Solving

Cont. from Page 8

Jeffery Liker. This was a company that was not in any way related to the automotive industry. Nonetheless, the supervisor explained that this book was almost required reading at their company. I read the book and it struck a cord.

In the book, the author quotes Taiichi Ohno, considered to be the father of the Toyota Production System, also known as Lean Manufacturing. “*What makes Toyota stand out is not any one of the individual elements ... But what is important is having all the elements together as a system. It must be practiced every day—not in spurts.*”

### Assessing Your Safety System

To assess your workplace safety system(s), the first document to look at is your Log 300-Record of Occupational Injuries and Illnesses. Reviewing what types of incidents are occurring, and the departments, equipment, machinery and processes involved, provides a baseline idea about the effectiveness of the systems that are in place, lacking or inadequate. The key is, how do impacted systems interact?

When designing a system relative to safety and health—it must fit in with the organizational structure and address all aspects of the job or process. It cannot be an “orphan,” disassociated from the larger organizational matrix.

For help on designing an accident prevention system, you can contact the Consultation Education and Training (CET) Division at 517.322.1809. ■

## Work-Related Asthma Training Workshops

Some adults develop new asthma from breathing substances in the air at work.

Other adults already have asthma that gets worse when they are at work.

Asthma attacks can happen when a person is exposed to substances called sensitizers or triggers. Some examples are: Isocyanates, metal working fluids, some paints and cleaning products, and some glues and resins.

Michigan State University’s Division of Occupational and Environmental Medicine (OEM) has developed a training workshop that can help employers protect their workers from asthma-related hazards in the workplace.

Call OEM at 800.446.7805, to schedule a workshop at your company.

## Fall Protection

Cont. from Page 7

### 100 Percent Fall Protection

Walbridge Aldinger has a 100 percent Fall Protection Policy that protects all their employees and all subcontractor personnel performing any work, including steel erection, roofing, and scaffolding. Any employee on a walking/working surface with an unprotected side or edge that is six feet or more above a lower level must be protected from falling by a guardrail system, safety net system, or as a last resort personal fall arrest system.

This policy was implemented on four recent projects. **Six falls were arrested because fall protection was used!** All six of these trades people drove home to their families at the end of the shift. Walbridge Aldinger completed these four large industrial projects that resulted in over four million work hours and an excellent safety record with **no lost time injuries!**

The six falls controlled by use of fall protection were:

- Three ironworkers tripped or lost their balance while working at elevations over 40 feet to complete major steel erection/connecting, where aerial work platforms could not be used.
- An ironworker working more than 20 feet above ground fell while installing metal roof decking.

■ A carpenter working at an elevation over 20 feet fell while installing temporary guardrail on the leading edge of a form system.

■ A carpenter working at an elevation exceeding 20 feet fell while working on a column form.

All six workers were protected by the use of fall protection equipment: harness, shock absorbing lanyard, or retractable lanyard. The Pre-Task Analysis (PTA) Contingency Plan was followed for each fall incident and the workers were quickly recovered. All workers were sent to a medical facility for evaluation and all returned back to work.

All six workers went through a site specific orientation where the 100 percent fall protection requirement for the project was discussed. Additionally, all workers were properly trained in fall protection that included proper use of their personal fall arrest systems.

All six workers stated that they simply lost their balance, or tripped/slipped, and that their fall was not a result of the PPE they were wearing while they were performing their work.

Fall Protection, Training/Education, PTA's, Safety Huddles, Safe Worker Recognition programs, and Employee Safety Committees played a tremendous part in the success of these projects.

#### Can This Work For Other Contractors?

As these examples show, **falls can be pre-**

**sented!** Walbridge Aldinger's motto is: **"IF IT'S NOT SAFE, I WON'T DO IT AND I WON'T LET OTHERS DO IT."** That motto is prominently displayed on every Walbridge jobsite.

Construction employers are required to provide their workers with appropriate fall protection and training. This case study shows how one successful company made the commitment to protect every worker—on every jobsite.

Construction employers have access to equipment, technology and practices that incorporate some of the newest types of equipment and ideas, combined with common sense practices. They can provide their employees with a high level of protection that allows them to accomplish their work and not feel like using safety equipment is bogging them down.

Employers and workers can call the MIOSHA Consultation Education and Training (CET) Division at 517.322.1809 for free consultation fall protection services. For more information on MIOSHA standards and fall hazards, companies can contact the Construction Safety and Health (CSH) Division at 517.322.1856.

*A special thanks goes to Steve Clabaugh, Assistant Vice President of Safety & Health, Walbridge Aldinger, and Dennis Jones, Safety Supervisor, Walbridge Aldinger, for sharing their fall protection policy and procedures.* ■

## Isocyanate Exposure in Construction

Cont. from Page 9

adequate for the hazard involved (e.g., wrong cartridge selection, inadequate protection factor for the exposures involved, etc.).

MIOSHA Part 451, Respiratory Protection, outlines an employer's responsibilities with regard to the use of respiratory protection in the workplace. Before providing and requiring the use of respiratory protection in the workplace, the employer must first:

- Develop/implement a written program.
- Evaluate potential exposures and select respiratory protection appropriate for them.
- Medically evaluate employees who will be required to wear respirators.
- Train employees regarding the limitations, proper use, and care of respirators.

Depending on the level of exposure, employers can select half-face, negative pressure, air-purifying respirators equipped with cartridges appropriate to the hazard. However, because isocyanate odor thresholds are higher than the MIOSHA MAC ceiling limits, we strongly encourage the use of supplied-air respiratory protection whenever detectable airborne levels are present in the workplace.

Regarding other forms of PPE, personnel should be provided with protective work clothing/equipment that is impervious to isocyanates, and eye protection should always be utilized

when working with these or any other chemical hazards in the workplace.

#### Training

The most effective method for protecting employees against exposure to hazardous chemicals in the workplace, and one that should be the stalwart of any effective health and safety program is that of training. Each employer who has employees that are working with, or are potentially exposed to, hazardous chemicals during the course of their work is required to develop and implement a Hazard Communication Program (HCP) in accordance with MIOSHA Part 430, Hazard Communication.

As part of an effective hazard communication program an employer is required to train employees with regard to the hazardous chemicals they are working with, or are exposed to as a result of another employer's work activities.

This training at a minimum must include:

- The methods and observations that may be used to detect the presence or release of hazardous chemicals in the workplace;
- The physical and health hazards of the chemicals in the work area;
- The measures that employees can take to protect themselves from exposure; and
- The details of the employer's HCP, including an explanation of MSDSs and the labeling system in the workplace.

An informed and well trained employee

will not only recognize the hazard posed by a particular work activity, but will also be knowledgeable regarding the personal protective equipment necessary to safely perform the job and the signs and symptoms of excessive exposure to the hazardous chemical.

#### Medical Surveillance

Though not required by a specific MIOSHA construction regulation, employers are strongly encouraged to develop a medical surveillance program that includes pre-placement and annual physical examinations, with emphasis placed on the respiratory system and patient history. All personnel who are potentially exposed to isocyanates during the course of their work should be included in such a program.

A well-designed and effective medical surveillance program serves two purposes. First, it is designed to monitor the health of employees involved with operations that potentially involve exposure to hazardous chemicals. Such a program will establish baseline criteria with which all future medical evaluations will be compared. Second, it permits an employer to gauge the effectiveness of the health and safety program.

#### Compliance Assistance

To receive assistance in evaluating employee exposures in the workplace, and to achieve compliance with construction regulations, contact the Consultation Education and Training Division at 517.322.1809. ■

# How To Contact MIOSHA

**MIOSHA Hotline** 800.866.4674  
**Fatality/Catastrophe Hotline** 800.858.0397  
**General Information** 517.322.1814  
**Free Safety/Health Consultation** 517.322.1809  
**Injury & Illness Recordkeeping** 517.322.1848

**Acting Director** 517.322.1814 **Martha Yoder**  
**Acting Deputy Director** 517.322.1817 **John Peck**

DIVISION	PHONE	DIRECTOR
Appeals	517.322.1297	Jim Gordon
Construction Safety & Health	517.322.1856	Bob Pawlowski
Consultation Education & Training	517.322.1809	Connie O’Neill
General Industry Safety & Health	517.322.1831	John Brennan
Management & Technical Services	517.322.1851	Ron Ray (Acting)

OFFICE	PHONE	MANAGER
Asbestos Program	517.322.1320	George Howard
CET Grant Program	517.322.1865	Louis Peasley
Employee Discrimination Section	248.888.8777	Jim Brogan
Management Information Systems Section	517.322.1851	Bob Clark
Standards Section	517.322.1845	Marsha Parrott-Boyle

THE MISSION OF THE MIOSHA PROGRAM IS TO HELP ASSURE THE SAFETY AND HEALTH OF MICHIGAN WORKERS.

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

If you would like to subscribe to the MIOSHA News, please contact us at 517.322.1809. The Department of Labor & Economic Growth is an equal opportunity employer/program. This newsletter will be made available in alternate formats on request.



Michigan Occupational Safety and Health Administration  
Acting Director: Martha Yoder

The MIOSHA News is a quarterly publication of the Michigan Occupational Safety and Health Administration (MIOSHA), which is responsible for the enforcement of the Michigan Occupational Safety and Health (MIOSH) Act.

The purpose is to educate Michigan employers and employees about workplace safety and health. This document is in the public domain and we encourage reprinting.

Printed under authority of the Michigan Occupational Safety and Health Act, PA 154 of 1974, as amended. Paid for with the state “Safety Education and Training Fund” and federal OSHA funds.

Editor: Judith M. Shane

Michigan Department of Labor & Economic Growth  
Director: Robert W. Swanson

Michigan Department of Labor & Economic Growth  
Michigan Occupational Safety and Health Administration  
P.O. Box 30643  
7150 Harris Drive  
Lansing, Michigan 48909-8143

PRESORTED  
STANDARD  
US POSTAGE PAID  
LANSING MI  
PERMIT NO 1200

(25,000 copies printed at a cost of \$11,158 or \$0.45 per copy.)