

## Electrocution Fatalities

### Overhead Power Lines Electrocuted Two Construction Workers in St. Clair Shores

*By: James Zoccoli, Senior Safety Officer  
Construction Safety and Health Division*

Electrocution remains a major cause of construction deaths in Michigan. Historically, electrocution accounts for about 20 percent of all fatalities in construction.

Unfortunately, last year was no exception. In 2003, there were 24 construction fatalities, and seven of those construction workers were fatally electrocuted. Several of these fatalities were related to contact with overhead power lines.

“Far too many Michigan construction workers are electrocuted on the job,” said **MIOSHA Director Doug Kalinowski**. “Workers exposed to electrical hazards must receive training in the

potential hazards and instruction about protective measures to perform their jobs safely.”

The Michigan Occupational Safety and Health Administration (MIOSHA) is committed to working with the construction industry to reduce the four major causes of construction fatalities: falls, electrocutions, struck-by, and crushed by/caught between.

#### Double Fatality Description

On Nov. 5, 2003, eight employees working for **Klee Construction Company** of St. Clair Shores were engaged in the rough carpentry framing of a two-story residential home at 10 Mile Road and Jefferson in St. Clair Shores.

The company was using a Terex-RO boom truck type crane, model BT-3470, to hoist wooden trusses to the second floor roof of the house. The trusses were stored beneath energized 7200-volt electrical lines. Foreman **Edward Spaccarotelli** of Warren was the crane operator, and **Ryan Surant** of St. Clair Shores was the hook-up person.

The crane had successfully completed two lifts of material from this location. While attempting the third lift, Spaccarotelli positioned the crane load line approximately 32 inches from one bare electrical power line conductor, which was just over 38 feet above the ground.

Surant, a 19-year-old student working part time, pulled the rigging towards the trusses being stored under the overhead lines. The crane load line contacted the overhead power line resulting in electrical flow through Surant’s body to the ground.

When Surant was unable to release the energized rigging, Spaccarotelli immediately left the crane operator’s station and attempted to assist him. Upon making contact with Surant, he also was energized. Both individuals were pronounced dead upon arrival at St. John Hospital and Medical Center in Detroit.



*On Nov. 5, 2003, two Klee Construction Company workers were electrocuted. MIOSHA regulations require employers to take precautions when cranes are operated near overhead power lines.*

### In This Issue

Director’s Column	2
MIOSHA Reorganization	3
New Scheduling Plan	4
Cease Operation Order	5
TB Respiratory Protection	6
The Bottom Line	7
Affirmative Defense	8
Recordkeeping Update	9
Discrimination Protection	10
Working in Cold Environments	11
CET Awards	12
Education & Training Calendar	13
Standards Update	14
Variations	16
Johnson Technology-Rising Star	17

## From the Bureau Director's Desk



*By: Douglas J. Kalinowski, Director  
Bureau of Safety & Regulation*

## Alliances & Partnerships: Two More Tools to “Make a Difference” in Michigan

In addition to strong enforcement and voluntary efforts, MIOSHA has promoted and maintained partnerships with organizations and employers for many years. Some have been formal including the Michigan Road Builders Association, Associated General Contractors of Michigan, Society of Plastics Industries, Ford Motor Company/UAW, and Visteon Corporation/UAW.

Informal alliances are ongoing with professional and trade associations, labor organizations, educational institutions and governmental agencies. Whether formal or informal, the impact on worker safety and health has been positive.

Successes of our current relationships include providing member companies with enforcement updates at locations around the state, participation on a major conference committee and industry annual meetings, articles on industry specific topics in association and MIOSHA publications, speaker exchanges, seminar cosponsors, and significantly enhanced communications.

As described in this and other issues of the MIOSHA News, MIOSHA follows a five-year strategic plan to guide allocation of resources and to measure impacts. Strategic alliances and partnerships are an important new emphasis area of our plan.

I recently approved a program instruction that adopts alliances as a formal program activity. In addition, a similar instruction is currently being finalized to establish the process to enter a partnership with MIOSHA.

Both partnerships and alliances are formal agreements with MIOSHA to promote interaction and leverage resources to impact workplace safety and health. The goal of both alliances and partnerships is to work together to reach out, to educate, and to lead the state's employers and employees in improving and advancing workplace safety and health. The primary difference is that a partnership will generally be with an employer or group of employers and an alliance with an organization or association.

### Alliance & Partnership Benefits

If you are wondering why anyone would participate in an alliance or partnership, let me tell you that, from our experience, the benefits have been remarkable. Benefits include building trusting, cooperative relationships, providing an avenue to work with others committed to workplace safety and health and best using available resources toward an ultimate goal of reducing job-related deaths, injuries and illnesses.

A MIOSHA Strategic Alliance provides the mechanism for MIOSHA to enter into a formal relationship with a trade or professional, labor, education or government agency. Each alliance must include a goal that addresses workplace safety and health outreach and promotion, and may also include education and training.

Activities that may be included under a MIOSHA Strategic Alliance agreement include:

- Provide member companies with information and guidance.

- Increase access to safety and health information and training resources.
- Utilize mutual resources to promote and disseminate information on web pages, newsletters, etc.
- Jointly develop training materials and safe or “best” work practices.
- Participate in conferences, seminars, and events.

### Alliance & Partnership Proposals

As you can see, MIOSHA is seeking relationships that will help the program reach out in every possible way to be certain that employers throughout Michigan and throughout our diverse industries are touched by information that can help them to improve the quality of life in their workplace.

MIOSHA is ready to accept proposals from organizations and associations. Those dedicated to joining efforts to spread the word about specific workplace safety and health issues will find MIOSHA a willing alliance partner.

As indicated above, we are working to finalize a program approach for MIOSHA Strategic Partnerships that will provide the opportunity for an employer or group of employers and their employees and employee representatives to establish a formal relationship with MIOSHA. A strategic partnership aims to have a measurable, positive impact on workplace safety and health that goes beyond what historically has been achievable through traditional enforcement methods and through a focus on individual worksites.

We are excited about the possibility of adding to our partnership companies and will provide additional information as soon as implementation is finalized. At the present time, MIOSHA has two employer/employee partners, Ford Motor Company/UAW and Visteon Corporation/UAW, which grew from a federal OSHA partnership agreement.

These two partnerships were established for three years and just extended for three more. Through the partnership activities, MIOSHA has benefitted by learning about the techniques and approaches developed and implemented to address specific problems or in response to emerging issues and new technologies. The employer partners have benefitted from the outside perspective that MIOSHA staff brings to special informational meetings and enforcement reviews of individual worksites.

Both MIOSHA Strategic Alliances and Partnerships represent voluntary, cooperative agreements.

MIOSHA Strategic Alliances and Partnerships provide an effective opportunity to integrate the values adopted by Governor Granholm for Michigan state government agencies: excellence, inclusion, integrity, and teamwork. I encourage anyone who wishes to explore the possibility of an alliance or partnership with MIOSHA to contact us. We will do everything that we can to work together to “Make a Difference” for all workplaces across this state.

*Douglas J. Kalinowski*

# MIOSHA Reorganization

The MIOSHA program has recently reorganized our operational structure, incorporating the most effective and efficient methods to carry out our responsibilities. We have combined enforcement divisions and created a new division. Our goal is to continue to make improvements in our program to better serve the employers and employees in Michigan.

There are many benefits for employees and employers in states where the occupational safety and health programs are administered by the state. Two very important ones are the ability to focus on issues important to the people within the state, and the relative ease and utility of getting input from stakeholders.

MIOSHA stakeholders have expressed a strong desire for uniformity among program processes and consistency in information provided by program. This reorganization provides an excellent opportunity to bring about significant improvements in these areas.

Effective Dec. 8, 2003, our program name has changed from the Bureau of Safety and Regulation to the **Michigan Occupational Safety and Health Administration (MIOSHA)**.

The new divisions, directors, responsibilities, and phone and fax numbers are listed below. Our website remains at [www.michigan.gov/miosha](http://www.michigan.gov/miosha).



## Michigan Occupational Safety and Health Administration

**Deputy Director: Martha Yoder**

Responsible for the overall administration of MIOSHA compliance programs.

Phone: 517.322.1817  
Fax: 517.322.1775

## Consultation Education & Training Division

**Director: Connie O'Neill**

Provides voluntary safety and health education, training, and consultation services.

Phone: 517.322.1809  
Fax: 517.322.1374



## Appeals Division

**Director: Diane Phelps**

Represents the MIOSHA program in formal appeals of citations.

Phone: 517.322.1297  
Fax: 517-322-6355

## General Industry Safety & Health Division

**Director: John Brennan**

Regulates safety and health working conditions in general industry and administers the employee discrimination program.

Phone: 517.322.1831  
Fax: 517.322.6353



## Construction Safety and Health Division

**Director: Robert Pawlowski**

Regulates safety and health working conditions in construction and administers the asbestos program.

Phone: 517.322.1856  
Fax: 517.322.6354

## Management and Technical Services Division

**Director: John Peck**

Provides centralized services for FOIA, data collection and analysis, lab services, and information technology.

Phone: 517.322.1817  
Fax: 517.322.1775



## MIO SHA Strategic Plan Focus Fiscal Years 2004 - 2008

For the two compliance divisions:

**General Industry  
Safety and Health Division  
Construction  
Safety and Health Division**

and the

**Consultation Education and  
Training (CET) Division**

As part of the MIO SHA Strategic Plan, inspections and outreach activity will focus on the following Standard Industrial Classification (SIC) codes/North American Industry Classification System (NAICS) codes.

### Top Three Targeted Injuries & Illnesses

#### 1. Amputations

SIC/NAICS

- 20/311 Food and Kindred Products
- 25/337 Furniture Manufacturing
- 33/331 Primary Metal Manufacturing
- 34/332 Fabricated Metal Products
- 35/333 Machinery Manufacturing
- 37/336 Transportation Equipment Manf.

#### 2. Overexertion/Repetitive Motion

All Michigan Industries

#### 3. Noise-Induced Hearing Loss

- 25/337 Furniture Manufacturing
- 33/331 Primary Metal Manufacturing
- 34/332 Fabricated Metal Products
- 35/333 Machinery Manufacturing
- 37/336 Transportation Equipment Manf.

### Top Six High-Hazard Industries

#### 1. Furniture Manufacturing

25/337

#### 2. Primary Metal Manufacturing

33/331

#### 3. Fabricated Metal Products

34/332

#### 4. Machinery Manufacturing

35/333

#### 5. Transportation Equipment Manufacturing

37/336

#### 6. Construction

15-17/23

### Workplaces Experiencing High Injury/Illness Rates

All Michigan Industries

The MIO SHA Strategic Plan is on our website at [www.michigan.gov/miosha](http://www.michigan.gov/miosha).

# New MIO SHA Scheduling Plan

## For General Industry Inspections and CET Services

*By: John Brennan, Director  
General Industry Safety and Health Division*

On Oct. 1, 2003, the MIO SHA program implemented a new Five-Year Strategic Plan for Fiscal Years 2004 through 2008, which will guide scheduling of program resources. This new plan identifies specific industries and injuries/illnesses for priority program attention.

Through the strategic plan, the MIO SHA program is able to target establishments for inspections that have the most problems, and avoid inspecting those establishments that are providing a safe and healthful work environment. In addition, consultation activities can be focused where the greatest potential for improvements exist.

The new MIO SHA Strategic Plan identifies six industries and three injuries/illnesses for priority attention. The goal is to reduce injuries and illnesses in these industries and areas by 20 percent by the end of the five-year plan. (See sidebar for a list of SIC/NAICS codes.)

The industries included in the new MIO SHA Strategic Plan are Construction, Furniture and Fixtures, Primary Metals, Fabricated Metals, Industrial Machines and Equipment, and Transportation Equipment. The injuries/illnesses identified in the plan are amputations, noise-induced hearing loss, and overexertion and repetitive motion.

The industries included in the plan are among the 20 most hazardous industries in Michigan. Based on Bureau of Labor Statistics (BLS) and state employment information, the selected industries represent a significant number of Michigan workers that could benefit from improvements in their safety and health management systems. Together the selected industries represent more than 800,000 workers in more than 28,700 establishments.

An additional goal calls for increased program attention to specific work locations experiencing high occurrences of worker injuries and illnesses regardless of industry classification.

### General Industry Inspection Focus

The system developed to identify workplaces for MIO SHA general industry safety and health inspections is based on multiple data sources. Most significant is the use of workers' compensation data to identify spe-

cific worksites. Workers' Compensation information is used in conjunction with other data sources including: previous MIO SHA inspection history, employer directories, and information collected through the federal OSHA data initiative.

Under the inspection targeting system, employers reporting higher numbers of compensable workers' compensation cases in selected Standard Industrial Classification (SIC) codes/North American Industry Classification System (NAICS) codes and randomly selected establishments will be identified for inspection. Emphasis is placed on selecting the specific SIC/NAICS for inspection based on the goals established in the MIO SHA Strategic Plan for Fiscal Years 2004 through 2008.

During Fiscal Year 2004, which began Oct. 1, 2003, targeting for general industry inspections will primarily address goals of reducing amputation injuries and reducing the injury and illness rate in the priority industries listed above. In addition, strategies will be developed to increase inspection activity in high-hazard industries to address overexertion/repetitive motion problems.

The injury and industry specific initiatives will be augmented with workplaces selected from all SIC/NAICS experiencing greater numbers of compensable workers' compensation cases, as well as randomly selected worksites. The General Industry Safety and Health Division will continue its current practice of investigating program-related fatalities, valid employee complaints, accidents and referrals, in addition to scheduled inspection activity.

### Focused Food Industry Inspections

On Nov. 1, 2003, the General Industry Safety and Health Division initiated a new strategy for Food Products Industry (SIC 20/NAICS 311) inspections. During the opening conference, the compliance officer will ask the employer what types of equipment and/or machines are present in the workplace. If the site has equipment and/or machines that could cause an amputation, the safety officer will conduct a thorough inspection of the equipment and/or machines, with particular attention to employee exposure to nip points, shear points, cutting actions, other pinch points and operator training.

*Cont. on Page 16*

# MIOSHA Orders Michigan Industrial Finishes Corporation to Cease Operating Dangerous Equipment

## Hamtramck Company Has Shown Serious Disregard for Employee Safety

On Aug. 22, 2003, Michigan Department Labor & Economic Growth Director David C. Hollister directed Michigan Occupational Safety and Health Administration (MIOSHA) safety officers to execute a Cease Operation Order against Michigan Industrial Finishes (MIF) Corporation in Hamtramck for continuing to operate inappropriate powered industrial trucks in a hazardous environment.

“MIOSHA standards require employers to protect workers from known workplace hazards. By not correcting previously identified hazards, Michigan Industrial Finishes has compromised the safety of its employees,” said Hollister. “MIOSHA is committed to helping employers who want to do the right thing. But we will not tolerate Michigan Industrial Finishes’ flagrant disregard of employee safety.”

A Cease Operation Order is one of the strongest actions MIOSHA can take against an employer. This is the second time in MIOSHA history that a Cease Operation Order has been served against a general industry employer for failing to correct identified safety violations within the provided time frame.

Cease Operation Orders have been executed when the department has determined there is a dangerous situation at a worksite and the employer refuses to discontinue the operation or remove workers from danger.

If an employer fails to comply with the Cease Operation Order, MIOSHA has the authority and the responsibility to seek a court order to obtain compliance.

### Explosion Hazards from Industrial Trucks

Michigan Industrial Finishes employs 15 workers and is a manufacturer of paint and paint products. Their business requires the extensive use of flammable and combustible liquids that are poured, mixed, blended and dispensed in various processes. They are classified as a high-hazard industry.

Industrial vehicles operated within hazardous areas present a risk of explosion. The flammable and combustible material can be released either by accident or during a process and may result in fire or explosion from

a hot surface or sparks from an industrial vehicle, whether powered by diesel engines or electrical equipment.

### The MIOSHA Inspections

MIOSHA safety officers conducted an inspection of Michigan Industrial Finishes from Aug. 21, 2001, through March 1, 2002. Citations were issued on May 29, 2002. The company received six serious violations, including a citation for operating inappropriate powered industrial trucks in hazardous locations.

According to General Industry Standard, Part 21., Powered Industrial Truck, Rule 4081.2155(1)(a), which incorporates National Fire Protection Association (NFPA) Standard 505-1996; powered industrial trucks used in locations containing flammable and combustible hazards must be rated and approved to not cause ignition of the hazardous material.

A follow-up inspection was initiated on Sept. 3, 2002, because the employer failed to submit abatement information to MIOSHA. The safety officers found that the employer had not taken any steps to abate the inappropriate use of the powered industrial trucks.

Safety officers returned on four separate dates—10/15/02, 11/18/02, 12/4/02, and 12/9/02—and on each visit discussed several acceptable methods of abatement with the employer to correct this hazard.

On Dec. 9, 2002, the follow-up inspection was closed with one item remaining unabated, the serious violation for inappropriate use of the powered industrial trucks. On Feb. 4, 2003, the company was issued a Fail to Abate Notice.

A second follow-up inspection was initiated on June 12, 2003, because the company still failed to submit abatement information. Safety officers again returned on five separate occasions and discussed

abatement methods—6/27/03, 7/18/03, 8/7/03, 8/11/03, and 8/18/03—and on each occasion the firm continued to use non-approved powered industrial trucks in the flammable paint manufacturing areas.

### The Cease Operation Order

A serious hazard existed at Michigan Industrial Finishes, in that employees were directed to operate powered industrial trucks in a hazardous location. The trucks were not approved for use in the flammable and combustible environment, and were not in compliance with Rule 2155(1)(a). MIOSHA issued the Cease Operation Order to protect the safety and well being of the workers.

“We will not allow this continued exposure of employees to potential explosion hazards. Since the employer refuses to take corrective action, we must step in and protect these workers,” said MIOSHA Director Doug Kalinowski. “As soon as Michigan Industrial Finishes corrects the hazards and notifies our safety officers, we will respond in less than 24 hours and remove the Cease Operation tags.”

The company moved into compliance by purchasing an approved powered industrial truck, and the cease operation tag was removed by the agency. MIOSHA is continuing to work with the company on other safety and health issues. ■



On Aug. 22, 2003, MIOSHA issued a Cease Operation Order against Michigan Industrial Finishes Corporation in Hamtramck for continuing to operate inappropriate powered industrial trucks in a hazardous environment.

# MIOSHA ANNOUNCES ENHANCED ENFORCEMENT OF RESPIRATORY PROTECTION FOR OCCUPATIONAL EXPOSURE TO TUBERCULOSIS

*By: Gerald Dike  
Industrial Hygienist & TB Specialist  
General Industry Safety & Health Division*

On Feb. 5, 2004, the Michigan Occupational Safety and Health Administration (MIOSHA) announced it is extending to workers exposed to tuberculosis (TB) the same high level of respiratory protection that is provided to workers throughout Michigan.

This increased level of worker protection follows a decision by the federal Occupational Safety and Health Administration (OSHA) to withdraw its 1997 proposed standard on tuberculosis. With the withdrawal of the proposed TB standard, MIOSHA will immediately begin applying the respiratory protection standard, Part 451, for protection against the disease.

While the enhanced requirements will take immediate effect, MIOSHA recognizes employers may need assistance to come into compliance. The philosophy of the MIOSHA program has long been to provide both compliance and outreach activities to protect Michigan workers. MIOSHA's Consultation Education and Training (CET) Division is initiating an outreach effort to provide training and information to affected employers in Michigan. Employers are urged to take advantage of the education and training outreach to assist in their efforts to protect workers from TB hazards.

"It is critical that employers be diligent in their efforts to provide a workplace free from recognized hazards," said MIOSHA Director Doug Kalinowski, "Employers are urged to demonstrate their good faith by being proactive in

their efforts to come into compliance."

In addition to the requirements of the respiratory protection standard, employee exposures to TB are also addressed by MIOSHA Directive No. 96-9, *Enforcement Policy and Procedure for Occupational Exposure to Tuberculosis*. This directive provides guidance on agency expectations for employers based on industry recognition that exposure to TB is a recognized hazard. The directive identifies health care facilities, long-term care facilities for the elderly, homeless shelters, drug treatment centers, and correctional facilities as posing a high risk of TB exposure.

**Under Directive No. 96-9, MIOSHA currently requires that employers:**

- Develop and implement a written respiratory protection program,
- Ensure proper respirator selection for protection against TB,
- Provide affected employees with initial respirator fit testing, and
- Provide employees with adequate respiratory protection training.

**The new requirements under the respiratory protection standard include:**

- Updating the facility's respirator program,
- Complying with amended medical evaluation requirements,
- Annual fit testing of respirators, and
- Training and recordkeeping provisions.

### Background Information

OSHA published a proposed standard on Oct. 17, 1997, to control occupational exposure to tuberculosis. It was estimated at that time that a standard would protect roughly 5.3 million workers in more than 100,000 hospitals, nursing homes, hospices, correctional facilities, homeless shelters, and other work settings with a significant risk of TB infection.

In 1998, federal OSHA promulgated an extensive modification to their general industry respiratory protection standard. At that time, OSHA announced it would wait until the conclusion of the TB rulemaking to decide whether to apply the respiratory standard to workers exposed to TB or to include TB-specific procedures in a tuberculosis rule. Those workers remained under a 1974 standard in the interim.

During the TB rulemaking process, federal OSHA conducted an extensive review of the issues related to respiratory protection. OSHA withdrew the proposed TB standard because they concluded that workers exposed to tuberculosis should have the same protections as those exposed to other types of hazards in the workplace. OSHA published termination of its TB rulemaking in the

*Federal Register* on Dec. 31, 2003.

A number of factors emerged which caused OSHA to terminate the proposed TB-specific regulation, including:

- TB in the United States has declined significantly since OSHA proposed a TB Standard.
- Increased implementation of TB controls and greater compliance with the Centers for Disease Control and Prevention's (CDC) guidelines has reduced TB levels.
- The occupational risk of TB infection is lower than that reflected in OSHA's proposed standard.

■ An OSHA standard would not substantially reduce transmission of TB from undiagnosed sources.

### Enforcement and Outreach Activities

The application of MIOSHA Part 451, Respiratory Protection, to facilities with TB exposure hazards will begin immediately. As a result, the two new requirements, fit testing and medical evaluations, become effective and must now be addressed.

MIOSHA will continue its current enforcement policy of Directive No. 96-9, *Enforcement Policy and Procedure for Occupational Exposure to Tuberculosis*, through the General Duty Clause, when an employer has a confirmed or suspected case of TB and is not adequately addressing the hazard. MIOSHA is currently updating the directive to reflect the recent rule changes.

Occupational exposure to TB is a serious and recognized hazard, and feasible abatement methods exist. MIOSHA's directive for TB exposure control methods is based on the CDC's 1994 *Guidelines for Preventing the Transmission of Tuberculosis in Health-Care Facilities*.

Control methods required in MIOSHA Directive No. 96-9 include:

- Early identification of patients/clients;
- Respiratory protection;
- Medical surveillance;
- Case management of infected employees;
- Work practices and engineering controls;
- Employee education and training.

"MIOSHA has the necessary tools and resources to help employers protect their workers from TB exposure hazards," said MIOSHA Director Doug Kalinowski.

Employers who have questions about TB enforcement and compliance issues may contact **MIOSHA TB Specialist Gerry Dike**, General Industry Safety and Health Division, at **248.888.8863**. Employers interested in MIOSHA outreach services can contact the **CET Division**, at **517.322.1809**. ■



*Facilities with TB hazards must comply with the MIOSHA Respiratory Protection standard, Part 451, to protect their workers from exposure to TB.*

## The Bottom Line

## Workplace Safety and Health Makes Good Business Sense

### Howmet Castings

Located in Whitehall, Howmet Castings is a world leader in the investment casting industry, providing precision-cast components of superalloy and titanium for aerospace and industrial gas turbine engines and aerospace applications.

Howmet is a key supplier of titanium ingots and ceramic products; provides component coating, heat-treating and refurbishment; hot isostatic pressing (HIP), ceramic products manufacturing; and conducts extensive research to aid development of its material, product and process technologies. There are seven manufacturing facilities, Howmet Research Corporation, Howmet Information Technology and several support operations, with 2,100 workers.

#### Safety & Health Improvements

Howmet Castings regards the health and safety of workers and the protection of the environment in the communities where it conducts business as a top priority. In 2000, Alcoa acquired Howmet Castings and this association provided Howmet with a new "Safety and Health Management System." This system and "other tools" have been utilized throughout the organization to significantly improve their overall environmental, health and safety performance.

Since 2000, there have been a number of important safety and health changes throughout the Whitehall Operations. Employees at all levels are now focused on "risk based" factors that could potentially contribute to injuries and incidents, as well as developing a better understanding of their roles and responsibilities.

Howmet has developed specific programs for managing processes with the highest risk potential. These "Critical 4" programs cover Confined Space Entry, Lockout/Tagout/Verification, Mobile Equipment and Fall Prevention/Fall Protection. Each Critical 4 program has a management individual assigned as a Single Point of Accountability (SPA). The SPA takes ownership of the program by developing a tactical team, utilizing the location's health and safety professionals as a technical resource, tracking leading indicators, and ensuring all aspects of the Critical 4 programs are implemented. The SPA's and their tactical teams have effectively helped these programs achieve a level of excellence, rather than simply regulatory compliance.

Howmet facilities and operations have undergone many physical improvements. Examples include: installation of standard barriers on rooftops; physical barriers to separate vehicle and pedestrian traffic; Lockout/Tagout/Verification placards on all equipment; and an aggressive ergonomic program, which has instituted a pre-work/post-lunch stretching program, an ergonomic intervention process and ergonomi-

cally designed workstations, equipment and processes. In addition, their medical review systems have been upgraded to ensure the workforce can safely perform their work assignments.

#### A World Class Safety & Health Program

Salaried as well as hourly employees serve on SAFETeams that focus on prevention, exposure and promotion activities. These teams bring safety and health programs to the floor level and encourage participation by conducting contests, reviewing employee concerns, conducting promotional activities and reviewing both leading and lagging indicators to identify injury types and trends.

Since fully integrating the safety and health management system, Howmet has experienced a significant reduction in Recordable and Lost Workday Cases. There is still room for improvement. Zero work-related injuries and illnesses have been a long-standing goal for Alcoa. Originally, the goal seemed impossible, but today they are well on their way to reaching that goal.

These reductions in injuries are attributable to the hard work of each and every Howmet employee; management's emphasis on finding the root-cause of every incident that occurs; employee involvement in continuous improvement; and the foundation that each employee is responsible for their own safety and health behaviors. With this foundation, all employees are determined to achieve their goal - ZERO work-related injuries.



*A Howmet employee is applying ceramic brace rods to a wax mold.*

This column features successful Michigan companies that have established a comprehensive safety and health program which positively impacts their bottom line. An accident-free work environment is not achieved by good luck—but by good planning! Creating a safe and healthy workplace takes as much attention as any aspect of running a business. Some positive benefits include: less injuries and illnesses, lower workers' compensation costs, increased production, increased employee morale, and lower absenteeism.

# Affirmative Defense

## So, You've Received a Citation You Disagree With

By: Robert Pawlowski, CIH, CSP, Director  
Construction Safety and Health Division

The Michigan Occupational Safety and Health Administration (MIOSHA) conducts inspections in Michigan workplaces under authority of the Michigan Occupational Safety and Health (MIOSH) Act, Act 154, P.A. of 1974, as amended.

As we all know, such inspections can result in MIOSHA issuing citations against an employer alleging that rules or standards established under authority of the MIOSH Act have been violated. The issued citation tells the employer what they are expected to do to comply with the rule or standard.

### The Appeal Process

The MIOSH Act also establishes an appeal process in the event that an employer disagrees with all or part of a citation that has been issued. The MIOSHA program provides a unique feature of offering employers an appeal process not found in federal OSHA.

**First Appeal** - All or part of the citation may be appealed within 15 working days of the receipt of the citation to the MIOSHA division that issued it. A division review follows and a decision is issued.

**Second Appeal** - This appeal may be filed within 15 working days upon receipt by the employer of the results of the first appeal. The Board of Health, Safety, Compliance, and Appeals holds an informal hearing.

**If the issues are not resolved** - A decision is issued following a formal hearing by an administrative law judge (ALJ). Decisions by the ALJ may be appealed to the full seven-member Board and ultimately to a Michigan Circuit Court.

### "Unpreventable Employee Misconduct" Defense

One of the most common arguments used in appeals by employers in defending against a MIOSHA citation, is what's commonly known as the "unpreventable employee misconduct" defense. Unpreventable employee misconduct has also been referred to as "affirmative defense," "isolated occurrence," "isolated incident," "isolated misconduct," or "employee misconduct."

Regardless of the name, the basic idea behind this defense is that if the employer has taken reasonable steps to ensure a safe workplace, then it is unfair and does not promote workplace safety and health to penalize the employer for conditions that were unpreventable and rare.

Since the beginning of OSHA in 1970, these issues have been discussed and debated. Judicial rulings have established a four-part test to determine if an employer has a valid unpreventable employee misconduct defense.

**All of the four elements must be met by the employer in order to sustain an unpreventable employee misconduct defense.**

Below is an explanation of all four elements of this four-part test.

### The Four-Part Test

**(1) The employer has established work rules designed to address hazards in the workplace and comply with MIOSHA rules and standards.**

The first element establishes whether the employer has addressed in any way health and safety in the workplace and is usually the easiest of the four elements for the employer to show.

It is very unlikely that an employer

would raise the unpreventable employee misconduct defense, without presenting some evidence that the employer had at least some elements of a safety and health program in place to address the hazards in the workplace.

If the employer can show that they have established a program, operating procedure, etc., which addresses the hazard in question, then they have met the requirement of this element.

If it can be shown that the requirements of this first element have not been met, then the other three elements discussed below become irrelevant, and the citation that was issued would typically be sustained.

**(2) The employer has adequately communicated established work rules to the employees (employee training).**

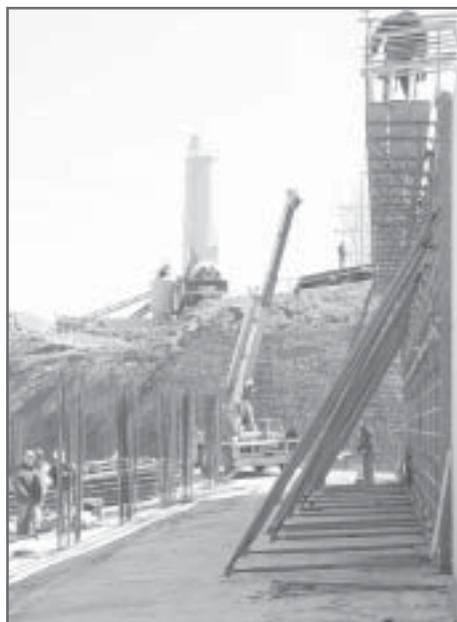
The second element focuses on how well the employer has trained the employees on the specific hazards that have been identified in the workplace, and how well the employer has communicated to the employees specific work practices designed to reduce or eliminate exposure to the hazard.

Where it can be shown that the employer has provided inadequate training, and/or the employer has missed providing training for some employees (e.g., new employees) then the defense will typically fail. Establishing element (2) can be established when the employer can show that employees are well trained, and were aware of established work rules.

**(3) The employer has taken steps to determine that employees are complying with established work rules (surveillance in the workplace).**

The third element has to do with whether the employer has exercised reasonable diligence in detecting workplace noncompliance with established work rules.

Where there is evidence of noncompliance, the assumption will typically be that the employer has not been diligent in identifying violations of established work rules. The defense has typically been rejected where there were identifiable incidents of noncompliance and the



*Employers must take reasonable steps to ensure that they are providing their workers with a safe and healthy workplace.*

Cont. on Page 17

# Recordkeeping Update

Recordkeeping is a vital tool that can help employers provide a safe and healthy work environment for their employees. Detailed records can supply employers with a recognized pattern of workplace hazards and potential prevention activities.

The Michigan Occupational Health and Safety Administration (MIOSHA) requires most Michigan employers with 11 or more employees to log and maintain records of work-related injuries and illnesses, and to make those records available during MIOSHA inspections of the workplace.

"Providing work environments that are safe and healthful requires daily diligence and ongoing commitment by Michigan employers," said **MIOSHA Director Doug Kalinowski**. "There is no more critical component to an employer's total safety and health effort than accurate recordkeeping."

Accurate accident and injury records are necessary to help MIOSHA determine how well an employer is doing at providing a safe and healthful workplace. These records include the **MIOSHA Form 300** (*Log of Work-Related Injuries and Illnesses*); **MIOSHA Form 301** (*Injury and Illness Incident Report*); and **MIOSHA Form 300A** (*Summary of Work-Related Injuries and Illnesses*).

Employers with 10 or fewer employees and employers in certain industry groups (retail trade; finance, insurance and real estate; and certain services industries) are normally exempt from the MIOSHA recordkeeping and posting requirements. These exemptions do not excuse any employer from coverage by MIOSHA or from compliance with all applicable safety and health standards.

## New Recordkeeping Forms

The three MIOSHA forms that are used by employers to record injuries and illnesses have changed in several important ways for 2004. Employers must begin to use the new MIOSHA Form 300 on Jan. 1, 2004.

Foremost among the changes is the addition of an occupational hearing loss column to **MIOSHA Form 300** (*Log of Work-Related Injuries and Illnesses*). Beginning Jan. 1, 2004, employers will be required to check a hearing loss column to record work-related cases meeting the new recording criteria established by MIOSHA.

The new recordkeeping standard requires employers to record work-related hearing loss cases when an employee's hearing test shows a marked decrease in overall hearing. Data from the new column will improve statistical information on occupational hearing loss, improve MIOSHA's ability to determine where the injuries occur, and help prioritize hearing loss pre-

vention efforts.

Under the new criteria, employers will record 10-decibel shifts from the employee's baseline hearing test when they also result in an overall hearing level of 25 decibels.

Other changes include:

- The "days away from work" column now comes before the days "on job transfer or restriction,"

- More clear formulas for calculating incidence rates,

- New recording criteria for occupational hearing loss in the "Overview" section, and

- More prominent column heading "Classify the Case" to make it clear that employers should mark only one selection among the four columns offered.

## Recording MSDs

Federal OSHA has decided not to modify the form that employers use to record workplace injuries and illnesses to include a separate column for musculoskeletal disorders (MSD). OSHA's decision appeared in the June 13, 2003, *Federal Register*.

This decision does not change the current way injuries or illnesses are recorded, and does not affect an employer's obligation to record work-related injuries, including musculoskeletal disorders. Employers will continue to check the column for 'injury' or 'all other illness' depending on the circumstances of the case.

OSHA concluded that an additional recordkeeping column would not substantially improve the national injury statistics, nor would it be of benefit to employers and workers because the column would not provide additional information useful to identifying possible causes or methods to prevent injury.

The agency also determined that useful information about MSD cases is available from currently published statistics. Current Bureau of Labor Statistics (BLS) national statistics already include comprehensive information about ergonomic-related injuries that result in days away from work, the number and incidence rate of these disorders, and detailed information on the nature of MSD injuries and illnesses.

## Posting Reminder

Michigan employers are required to post the total number of job-related injuries and illnesses that occurred in 2003. Employers must post the **MIOSHA Form 300A** (*Summary of Work-Related Injuries and Illnesses*) for three months, from **Feb. 1 to April 30, 2004**.

Companies with no injuries and illnesses during the previous year are still required to post the **MIOSHA Form 300A** by putting zeros on the total line. A company executive must certify that the totals are correct and sign the form, which is then displayed wherever notices to employees are usually posted.

A copy of the summary must also be made available to employees who move from worksite to worksite, such as construction workers, and employees who do not report to any fixed establishment on a regular basis.

Employers should use the **old MIOSHA Form 300A** (without the hearing loss column) to post as required in 2004. The **new MIOSHA Form 300A** that includes the hearing loss column should be used in February 2005.

## Recordkeeping Information

The **MIOSHA Consultation Education and Training (CET) Division** has taken the lead in recordkeeping outreach. CET safety and health consultants have developed PowerPoint presentations, training materials, and flow charts with medical treatment examples. Annually, CET schedules recordkeeping training seminars across the state. Please contact the CET Division at **517.322.1809** for more information.

Recordkeeping information is available on the MIOSHA website at [www.michigan.gov/miosha](http://www.michigan.gov/miosha), under the "MIOSHA Initiatives" heading. This site includes the rule, recent changes, the forms, and training opportunities. Employers can also call the **Management Information Systems Section** at **517.322.1848** for information about recordkeeping. To receive the required forms, please call **517.322.1851**.

All employers are also reminded they are required by law to notify MIOSHA within eight hours of a fatality or any hospitalization of three or more employees suffering injury or illness from an accident. A special report line is available 24 hours, at **800.858.0397**. ■

## Reminder

Employers must begin to use the new MIOSHA Form 300 on January 1st

# DISCRIMINATION IS UNLAWFUL UNDER MIOSHA

By: James Brogan, Manager,  
Employee Discrimination Section

It is unlawful, under the Michigan Occupational Safety and Health (MIOOSH) Act for an employer to discharge an employee or in any manner discriminate against an employee because the employee filed a safety and health complaint. Types of discrimination include:

- Discharge,
- Demotion,
- Suspension,
- Harassment, and/or
- Other types of disciplinary action.

An employee who believes that he or she was discharged or otherwise discriminated against by their employer must file a complaint with the Michigan Occupational Safety and Health Administration (MIOSHA) within 30 days of the violation. Upon receipt of the complaint, MIOSHA will investigate as appropriate.

If MIOSHA determines that an employee was discriminated against, it will order all appropriate relief, including:

- Rehiring or reinstatement to the former position,
- Payment of back wages, with interest, and
- Possible compensation for any special damages or fees.

The MIOOSH Act also contains the following discrimination provisions:

- A duly authorized employee representative has the right to accompany a MIOSHA representative on an investigation/inspection without the loss of wages

or fringe benefits.

- Employees have the right to be interviewed in private and request material safety data sheets without being discriminated against.

- An employer is prohibited from discriminating against an employee for reporting a work-related fatality, injury or illness, or asking for access to records.

## Refusal to Work

A common question received by the Employee Discrimination Section is whether an individual can refuse to work. In this area, court decisions have provided formal interpretation and guidance regarding the intent of the MIOOSH Act. In 1980, the Michigan Supreme Court decided in Marshall v. Whirlpool that employees have the right to refuse job assignments if the assignment is deemed an “imminent danger.”

The court also said that for a refusal to work to be justified, the following criteria must be present:

- An employee with no reasonable alternative refuses in good faith to expose himself/herself to the dangerous condition (imminent danger).
- The condition causing the employee’s apprehension of death or serious bodily injury must be of such a nature that a reasonable person under the same circumstances would conclude there is a real danger of death or serious injury.
- There is insufficient time to eliminate the dangerous condition through regulatory channels.

- Where possible, the employee must have also sought from the employer and was unable to obtain, a correction of the dangerous condition.

## The Discrimination Investigation

A discrimination complaint under MIOSHA can be verbal, electronic or in written form to management, employee organizations and/or to the news media. These complaints do not have to be filed directly with MIOSHA for the provisions to apply.

Discrimination complaints under the MIOSHA Act must be made within **30 days** of

the date of the alleged discrimination. This is a strict time frame, and employees need to keep this time limit in mind. Unfortunately, each year there are employees who may have valid complaints but have allowed the allotted time to file a complaint lapse.

A discrimination complaint will normally be opened for an investigation when it is alleged that an employee is discriminated against in some manner for complaining of a safety and health issue. The allegation must include:

- An employee who is engaged in a protected activity,
- An indication the employer had knowledge of the protected activity, and
- As a result, the employee suffered an adverse employment action.

Once a complaint is filed, a screening process takes place to insure that the complaint contains the necessary elements. If it meets the criteria, the complaint is given a docket number and assigned for investigation. The employer is advised of the pending investigation in order to provide rebuttal to the charge.

After all witnesses are interviewed and documents reviewed, a determination order is issued, either upholding the complaint or dismissing it. Both parties, the employer and the employee, have the right to appeal this decision to an Administrative Law Judge with the Michigan Department of Labor & Economic Growth, Bureau of Hearings, and ultimately to the court system. This appeal process affords both the employee and the employer an opportunity to present their positions in a neutral environment.

## Recent Discrimination Cases

**Denial of Production Bonus** – An employer recently denied a production bonus to an employee who had received medical treatment for an injury.

This action violated the MIOOSH Act because an employee may not be discriminated against for reporting an occupational injury/illness. The employer appealed, but the case was settled in favor of the employee prior to the hearing.

**Unacceptable Employee Conduct** – An employee alleged his termination, which was later changed to a suspension, was because of filing a safety and health complaint.

MIOSHA found no merit because the

*Cont. on Page 19*



Jim Brogan, Manager, MIOSHA Employee Discrimination Section, and Dana Girty, Rights Representative, review a discrimination case file.

# Protecting Workers in Cold Environments

More than 700 people die of hypothermia each year in the United States

Working in cold environments can be dangerous. Workers who must brave outdoor conditions face the occupational hazard of exposure to the cold. MIOSHA reminds employers and workers to take necessary precautions to help protect workers in cold environments.

Prolonged exposure to freezing temperatures can result in health problems as serious as trench foot, frostbite, and hypothermia. Workers in such industries as construction, commercial fishing and agriculture need to be especially mindful of the weather, its effects on the body, proper prevention techniques, and treatment of cold-related disorders.

## The Cold Environment

An individual gains body heat from food and muscular activity and loses it through convection, conduction, radiation and sweating to maintain a constant body temperature. When body temperature drops even a few degrees below its normal temperature of 98.6°F, the blood vessels constrict, decreasing peripheral blood flow to reduce heat loss from the surface of the skin. Shivering generates heat by increasing the body's metabolic rate.

The four environmental conditions that cause cold-related stress are low temperatures, high/cool winds, dampness and cold water. Wind chill, a combination of temperature and velocity, is a crucial factor to evaluate when working outside. For example, when the actual air temperature of the wind is 40°F and its velocity is 35 mph, the exposed skin receives conditions equivalent to the still-air temperature being 11°F! A dangerous situation of rapid heat loss may arise for any individual exposed to high winds and cold temperatures.

## Major Risk Factors for Cold-Related Stresses

- Wearing inadequate or wet clothing increases the effects of cold on the body.
- Taking certain drugs or medications such as alcohol, nicotine, caffeine, and medication that inhibits the body's response to the cold or impairs judgment.
- Having a cold or certain diseases, such as diabetes, heart, vascular, and thyroid problems, may make a person more susceptible to the winter elements.
- Being a male increases a person's risk to cold-related stresses. Sad, but true, men experience far greater death rates due to cold exposure than women, perhaps due to inherent risk-taking activities, body-fat composition or other physiological differences.
- Becoming exhausted or immobilized, es-

pecially due to injury or entrapment, may speed up the effects of cold weather.

■ Aging – the elderly are more vulnerable to the effects of harsh winter weather.

## Harmful Effects of Cold

**Trench Foot:** Is caused by long, continuous exposure to a wet, cold environment, or actual immersion in water. Commercial fisherman, who experience these types of cold, wet environments daily, need to be especially cautious.

**Symptoms:** They include a tingling and/or itching sensation, burning, pain, and swelling, sometimes forming blisters in more extreme cases.

**Treatment:** Move individuals with trench foot to a warm, dry area, where the affected tissue can be treated with careful washing and drying, rewarming and slight elevation. Seek medical assistance as soon as possible.

**Frostbite:** It occurs when the skin tissue actually freezes, causing ice crystals to form between cells and draw water from them, which leads to cellular dehydration. Although this typically occurs at temperatures below 30°F, wind chill effects can cause frostbite at above-freezing temperatures.

**Symptoms:** Initial effects of frostbite include uncomfortable sensations of coldness; tingling, stinging or aching feeling of the exposed area followed by numbness. Ears, fingers, toes, cheeks, and noses are primarily affected. Frostbitten areas appear white and cold to the touch. The appearance of frostbite varies depending on whether rewarming has occurred.

Deeper frostbite involves freezing of deeper tissues (muscles, tendons, etc.) causing exposed areas to become numb, painless, hard to the touch.

**Treatment:** If you suspect frostbite, you should seek medical assistance immediately. Any existing hypothermia should be treated first. (See Hypothermia below.) Frostbitten parts should be covered with dry, sterile gauze or soft, clean cloth bandages. Do not massage frostbitten tissue because this sometimes causes greater injury. Severe cases may require hospitalization and even amputation of affected tissue. Take measures to prevent further cold injury. If formal medical treat-

ment will be delayed, consult with a licensed health care professional for training on rewarming techniques.

**General Hypothermia:** This occurs when body temperature falls to a level where normal muscular and cerebral functions are impaired. While hypothermia is generally associated with freezing temperatures, it may occur in any climate where a person's body temperature falls below normal. For instance, hypothermia is common among the elderly who live in cold houses.

**Symptoms:** The first symptoms of hypothermia, shivering, an inability to do complex motor functions, lethargy, and mild confusion, occur as the core body temperature decreases to around 95°F.

As body temperature continue to fall, hypothermia becomes more severe. The individual falls into a state of dazed consciousness, failing



*Employers and workers in industries such as construction need to take precautions and learn how to prevent and treat cold-related disorders.*

to complete even simple motor functions. The victim's speech becomes slurred and his or her behavior may become irrational.

The most severe state of hypothermia occurs when body temperature falls below 90°F. As a result, the body moves into a state of hibernation, slowing the heart rate, blood flow, and breathing. Unconsciousness and full heart failure can occur in the severely hypothermic state.

**Treatment:** It involves conserving the victim's remaining body heat and providing additional heat sources. Specific measures will vary depending upon the severity and setting (field or hospital). Handle hypothermic people very carefully because of the increased irritability of the cold heart. Seek medical assistance for persons

*Cont. on Page 19*

# CET Awards

MIOSHA recognizes the safety and health achievements of Michigan employers and employees through CET Awards, which are based on excellent safety and health performance.



*Greg Scheessele, Sr. VP Global Operations; Mike Everett, Sr. Manager Safety and Facilities; Ivo Marcich, VP, Site General Manager; Doug Kalinowski, MIOSHA Director; Bill Lykes, CET Supervisor; Connie O'Neill, CET Director; and Suellen Cook, CET Consultant.*

## Pall Life Sciences - Ann Arbor

On October 29, 2003, Pall Life Sciences of Ann Arbor received the **CET Bronze Award** for an outstanding safety and health record.

BSR Director **Doug Kalinowski** presented the award to **Greg Scheessele**, Senior Vice President of Global Operations, Pall Corporation; **Mike Everett**, Environmental Health and Safety Manager, Pall Life Sciences; and members of the **Pall Life Sciences Safety Committee**.

"Pall Life Sciences takes great pride in our safety program. Our safety committee is a highly motivated and diverse team representing all areas of our business," said General Manager **Ivo Marcich**.

One program that has helped increase their safety awareness is an internal auditing program. Pall Corporation has 14 other U.S. manufacturing sites. Health and safety professionals from each of these sites visit other Pall facilities once a year to do a wall-to-wall safety compliance audit.

Pall Life Sciences, a division of Pall Corporation, employs 500 workers and develops and manufactures filtration and separations products used in laboratory research, healthcare, diagnostic tests, and industrial applications.

## Tenneco Automotive - Litchfield

On November 21, 2003, Tenneco Automotive's Litchfield plant received the **CET Ergonomic Innovation Award**, which is issued to employers for innovative ideas that have been implemented to reduce worker strain.

Consultation Education & Training Division Director **Connie O'Neill** presented the award to **AJ Hale**, Environmental Health & Safety Engineer, and to members of the **Ergonomics Team** and the **Litchfield Employees Accident Prevention System Team (LEAPS)**. Both teams played a major role in improving the Litchfield safety performance.

The Litchfield facility is a Tier 1 manufacturer of exhaust assemblies and employs approximately 400 workers. Since 1998 they have made significant ergonomic improvements, including the use of different types of lift assist devices throughout the production line, to dramatically decrease manual lifting. They have also designed and modified workstations with adjustable worktables to reduce worker strains. Along with these improvements, the facility is using job rotation to reduce overexertion injuries.

Tenneco Automotive is a \$3.5 billion manufacturing company, with approximately 19,600 employees worldwide, and is one of the world's largest producers and marketers of ride control and exhaust systems and products.



*(Front) Nella Davis-Ray, CET Safety & Health Manager; Scott Bugbee; Sandra Lucas; Connie O'Neill, CET Director; Mary Owens; (Back) AJ Hale; Sandy Boullis; Jackie Marten; Brent Inosencio; Curt Philson.*

## Flat Rock Metal Inc. - Flat Rock

On December 11, 2003, Flat Rock Metal Inc.'s Michigan facility received the **CET Bronze Award** for an outstanding safety and health record.

CET Safety Consultant **Linda Long** presented the award to **Greg Zang**, Vice President of Operations, during a plant meeting. "We are proud to recognize Flat Rock Metal for their outstanding efforts to create a safe and healthy work environment," said Long. "Reducing injury and illness rates not only protects workers, it has a healthy impact on a company's bottom line."

Flat Rock Metal Inc. specializes in critical surface processing and preparation, servicing the automotive and steel industries. The Michigan plant is a 90,000 sq. ft. facility, with 175 hourly employees.

They have four blanking processes with capacities up to 400 tons and bed sizes up to 70" x 130". In addition, they have six multiple head lines for polishing hot rolled or cold rolled carbon steel sheets. They are also capable of processing carbon steel sheets through a variety of treatments. Flat Rock Metal has built a strong reputation by offering superior service and quality to their customers.



*Flat Rock Metal employees Mark Nades, Dave Ailiff, Erick Robinette (back), Don Nash, Mike Strickland, and Ed Dubose participated in the CET Bronze Award presentation.*

# Education & Training Calendar

Date	Course Location	MIOSHA Trainer Contact	Phone
<b>March</b>			
16	Guarding for Manufacturing Kalamazoo	Micshall Patrick S. Carter	800.704.7676
16	Overview of Overhead & Gantry Cranes Dearborn Heights	Linda Long Carol Kalmeta	313.517.1500
16	Bloodborne Infectious Diseases Workshop Southfield	Sherry Walker Ed Ratzenburger	248.557.7010
17	Developing Your Hearing Conservation Program Muskegon	Janet Fekete Suzy Carter	866.423.7233
17	When MIOSHA Visits Holland	Rob Stacy Brian Cole	616.331.7180
17	Lockout and Machine Guarding Cadillac	Anthony Neroni Michelle King	231.775.2458
17 & 18	MIOSHA 10-Hour for Construction Marquette	Tom Swindlehurst Kathy Kester	517.371.1550
18	Lockout and Machine Guarding Port Huron	Bernard Sznaider Terri Johns	810.985.1869
22	Lockout and Machine Guarding Clarkston	Richard Zdeb Peggy DesRosier	248.625.5611
23	Elements of a Safety & Health Management System Ironwood	Dan Maki Jim Lorenson	906.932.4231
23, 24	Two-Day Mechanical Power Press Seminar Clarkston	Richard Zdeb Peggy DesRosier	248.625.5611
23, 24, 25	Safety and Health Administrator Course for Construction Midland	Tom Swindlehurst Ron Munson	989.496.9415
24 & 25	MIOSHA 10-Hour for Construction Kalamazoo	Debra Johnson Pete Anderson	517.371.1550
25	Elements of a Safety & Health Management System Holland	Rob Stacy Brian Cole	616.331.7180
25	Lockout/Tagout: Controlling Hazardous Energy Sources Marquette	Dan Maki Staff	906.226.6591
25	Mechanical Power Press Ann Arbor	Suellen Cook Ray Grabel	734.677.5259
29 & April 5	MIOSHA 10-Hour for Construction Midland	Tom Swindlehurst Lisa Strobel Skufea	989.832.8879
<b>April</b>			
1, 2	MIOSHA 10-Hour for Construction Lansing	Tom Swindlehurst Julie Strudwick	517.394.4481
6	When MIOSHA Visits Saginaw	Richard Zdeb Dan Mathews	888.238.4478
6	Excavation Hazards and Soil Mechanics Midland	Tom Swindlehurst Ron Munson	989.496.9415
6	Safety & Health Challenges in the Plastics Industry Shelby Township	Lee Jay Kueppers Kathy Ashley	586.731.3476

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. Carl Davis\*\*
- Mr. Daniel Corbat
- Mr. Andrew Lang
- Vacant

*Management*

- Mr. Peter Strazdas\*
- Mr. Charles Gatecliff
- Ms. Cheryl Hughes
- Mr. Edward Tanzini

*Public Member*

- Mr. Kris Mattila

**General Industry Safety Standards Commission**

*Labor*

- Mr. James Baker
- Dr. Tycho Fredericks
- Mr. John Pettinga
- Vacant

*Management*

- Mr. Timothy J. Koury\*
- Mr. Michael L. Eckert
- Mr. Thomas Pytlik\*\*
- Mr. George A. Reamer

*Public Member*

- Ms. Geri Johnson

**Occupational Health Standards Commission**

*Labor*

- Dr. G. Robert DeYoung
- Ms. Cynthia Holland
- Mr. Michael McCabe
- Ms. Margaret Vissman\*

*Management*

- Mr. Robert DeBruyn
- Mr. Michael Lucas
- Mr. Richard Olson\*\*
- Mr. Douglas Williams

*Public Member*

- Dr. Darryl Lesoski

\*Chair \*\*Vice Chair

# Standards Update

## Construction Safety Standard Commissioners Provided Dedicated Service

Carl Davis and Charles Gatecliff's terms of service with the Construction Safety Standards Commission have expired, but the memory of their service will live on. The commission will miss these two veteran commissioners who spent a collective 22 years of service to construction employers and employees in Michigan.

Praise and appreciation for these commissioners was expressed recently by the commission and MIOSHA Director Doug Kalinowski during a commission meeting held at the annual Construction Safety Day Conference on Jan. 20, 2004. The conference was held at the MSU Kellogg Center in East Lansing, and was sponsored by the Association for General Contractors.

Charles Gatecliff, of Brighton, is owner of CAG Consulting, Ltd. Gatecliff was appointed to represent management in the construction industry. Gatecliff was first appointed in 1992.

Carl Davis, of Detroit, is the Assistant General Foreman for the Detroit Public Schools Plumbing Department. Davis was appointed to represent public employees. Davis was first appointed in 1994.

According to Commission Chair Peter Strazdas, "Chuck and Carl were dedicated members of the commission. They both shared a common vision of a safe work environment for the Michigan construction community." Their participation on the commission has improved the construction safety standards in the areas of purpose, clarity, applicability, enforceability, and cost effectiveness.

During their tenure on the commission they served in leadership roles when a mission statement was created, the MIOSHA Strategic Plan was developed, and when rule promulgation was very active. Their dedication to maintaining good regulation and the protection of workers everywhere was always obvious. Michigan construction workers have benefitted from their years of service.

MIOSHA has facilitated three standards commissions since 1976, Occupational Health, General Industry Safety and Construction Safety. The commissioners are citizens recognized as experts in worker safety and health in their field. They are all appointed by the governor representing a balance of labor, management and the general public. Commissioners serve a three-year term with the possibility of re-appointment. Public Act 154 of 1974, as amended, created the commissions and gave them the authority to establish mandatory standards as prescribed in the Michigan Occupational Safety and Health Act, to prevent accidents and protect the life and safety of Michigan employees from recognized hazards.



MIOSHA Director Doug Kalinowski (L.) presented Construction Safety Standards Commissioners Charles Gatecliff and Carl Davis with a plaque honoring their outstanding MIOSHA service.

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

# Status of Michigan Standards Promulgation

(As of February 2, 2004)

## Occupational Safety Standards

### General Industry

Part 08.	Portable Fire Extinguishers .....	Approved by Commission for review
Part 17.	Refuse Packer Units .....	Approved by Commission for review
Part 18.	Overhead & Gantry Cranes .....	Draft rule approved by ORR
Part 19.	Crawler, Locomotive, & Truck Cranes .....	At Advisory Committee
Part 20.	Underhung Cranes & Monorail Systems .....	Approved by Commission for review
Part 58.	Vehicle Mounted Elevating & Rotating Platforms .....	Approved by Commission for review
Part 62.	Plastic Molding .....	Approved by Commission for review
Part 79.	Diving Operations .....	Approved by Commission for review
Pending	Ergonomics (Joint) .....	Advisory Committee open for review

### Construction

Part 01.	General Rules .....	Approved by Commission for review
Part 07.	Welding & Cutting .....	Approved by Commission for review
Part 08.	Handling & Storage of Materials .....	Approved by Commission for review
Part 12.	Scaffolds & Scaffold Platforms .....	Approved by Commission for review
Part 14.	Tunnels, Shafts, Caissons & Cofferdams .....	Final, effective 02/27/03
Part 16.	Power Transmission & Distribution .....	Approved by Commission for review
Part 25.	Concrete Construction .....	Final, effective 12/19/03
Part 26.	Steel Erection .....	Advisory Committee open for review
Part 30.	Telecommunications .....	Approved by Commission for review
Part 45.	Fall Protection .....	Withdrawn by Commission
Part 79.	Diving Operations .....	Approved by Commission for review
Pending	Communication Tower Erection .....	Approved by Commission for review

## Occupational Health Standards

### General Industry

Part 079.	Diving Operations .....	Approved by Commission for review
Part 431.	Hazardous Work in Laboratories .....	Formal draft submitted to ORR
Part 501.	Agricultural Operations .....	Final, effective 12/11/02
Part 525.	Grinding, Polishing & Buffing .....	Final, effective 04/01/03
Part 700.	Agriculture .....	Formal draft submitted to ORR
Pending	Diisocyanates .....	Advisory Committee open for review
Pending	Ergonomics (Joint) .....	Advisory Committee open for review

### Construction

None

## Administrative Rules

Part 11.	Recording and Reporting of Occupational Injuries and Illnesses .....	Final, effective 12/03/02
Part 51.	Agriculture .....	Final, effective 12/01/03

*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 October 2003) 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  
 ORR Office of Regulatory Reform  
 LSB Legislative Services Bureau  
 JCAR Joint Committee on Administrative Rules

## New Scheduling Plan

Cont. from Page 4

The compliance officer will also evaluate employee exposures during the following:

- Regular operation of the machine,
  - Setup/threading/preparation for regular operation of the machine,
  - Clearing jams or upset conditions,
  - Running adjustments while the machine is operating,
  - Cleaning of the machine,
  - Oiling or greasing of the machine,
  - Scheduled/unscheduled maintenance,
- and
- Lockout/tagout.

In addition, the compliance officer will also review all relevant MIOSHA 200/300 injury logs for amputation injuries or hazards.

If these areas demonstrate adequate compliance, the inspection will be completed at that time. If a significant number of serious hazards are identified, the inspection will be expanded to a full review of the workplace.

### CET Services

The Consultation Education and Training (CET) Division will also use the data sources described above as part of its targeting for outreach activities. Use of this data enables the CET Division to focus outreach and training efforts toward those companies with the greatest need. CET is developing a variety of approaches to reach the targeted industries.

Self-help kits will be developed for employers in industries addressed by the strategic plan. Special outreach efforts including seminars, mailings, and articles are planned to provide information on workplace safety and health requirements and best industry practices.

In addition, employers can request a visit from a safety or health consultant. Consultation activities are free, voluntary, and performed by a staff separate from the enforcement program.

The FY 2004 - 2008 MIOSHA Strategic Plan is available on our website at [www.michigan.gov/miosha](http://www.michigan.gov/miosha). ■

### CET Services

The Consultation Education and Training (CET) Division provides extensive outreach activities for facilities covered by the MIOSHA Strategic Plan.

**Help is Available!**  
517.322.1809

# Variations

Published February 16, 2004

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

Part 10 - Lifting & Digging Equipment:  
Rule R408.41015a(1),  
R408.41015a(2)(a)(b)(c)(d)(e)(g)(h)(i)(j)(k)(l),  
R408.41015a(3), R408.41015a(4),  
R408.41015a(5), R408.4017a, R408.41018a(1)

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

To allow employee to use a boatswains chair with a hydraulic crane.

**Name and address of employer**

Cusack's Masonry Restoration

**Location for which variance is requested**

Shiawassee County Courthouse, Corunna

**Name and address of employer**

Hi-Ball Co., Inc.

**Location for which variance is requested**

Shiawassee County Courthouse, Corunna

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

Part 12 - Scaffolds and Scaffold Platforms:  
R408.41221, Rule 1221(1)(c)

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

To allow employer to use stilts at a maximum height of 24 inches under controlled conditions and according to certain stipulations.

**Name and address of employer**

Pontiac Ceiling & Partition Co. LLC

**Location for which variance is requested**

Royal Oak Beaumont Hospital, Royal Oak

**Name and address of employer**

Schuster Platforms LLC

**Location for which variance is requested**

205 State St., Ann Arbor

**Name and address of employer**

Williams Panel Brick Inc.

**Location for which variance is requested**

205 State St., Ann Arbor

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

Part 32 - Aerial Lift Platforms: Rule R408.43209,  
Rule 3209 (8)(b) and Rule 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**

John E. Green Company

**Location for which variance is requested**

University of Michigan Biomedical Research Bldg.,  
Ann Arbor

**Name and address of employer**

John E. Green Company

**Location for which variance is requested**

William Beaumont Hospital South Tower, Royal Oak

**Name and address of employer**

Wolverine Fire Protection Co.

**Location for which variance is requested**

Lakeland High School, White Lake

**Name and address of employer**

Wolverine Fire Protection Co.

**Location for which variance is requested**

Milford High School, Highland

### Variances Granted Construction

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

Part 10 - Lifting & Digging Equipment: Rule R408.41015, Rule 1015a(2)(h) & Rule R408.41018, Rule 1018a(1)

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

AMENDED VARIANCE To allow employer to use an independent 3-point suspension system providing certain stipulations are adhered to.

**Name and address of employer**

DOW U.S.A.

**Location for which variance is requested**

Dow Chemical Company, Midland

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

Part 32 - Aerial Lift Platforms: R408.43209, Rule 3209 (8)(b) & R408.43209, Rule 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**

Barton Malow Company

**Location for which variance is requested**

Crittenton Hospital, North & South Addition,  
Rochester Hills

**Name and address of employer**

John E. Green Company

**Location for which variance is requested**

Crittenton Hospital, North & South Addition,  
Rochester Hills

### Variances Requested General Industry

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

Part 1 - General Provisions Standard: Rule 36(1)

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

The employer has requested to use air blowguns in excess of 30 pounds per square inch under controlled conditions.

**Name and address of employer**

Bosch Chassis Div, St. Joseph

**Location for which variance is requested**

3737 Red Arrow Hwy, St. Joseph ■

## Affirmative Defense

Cont. from Page 8

employer's efforts to detect and correct violations has been lacking.

**(4) The employer has effectively enforced established work rules when violations have been discovered.**

The fourth element has to do with the degree to which the employer has enforced its safety and health work rules through sanctions and discipline against non-complying employees.

If the employer discovers that employees have not complied with established work rules and fails to take some sort of action, then the employer fails to show that the condition was unpreventable, and the fourth element of the defense would typically not be sustained.

Where there is evidence of sanctions such written reprimand, docking of pay; an enforced progressive disciplinary process, then the defense may be upheld with regard to this element.

### Meeting all Four Requirements

It has been MIOSHA's experience that many employers can show that they have met the requirements of elements (1) and (2) above, but have a difficult time showing that they have performed adequate surveillance in the workplace, and have adequately enforced established work rules.

Keep in mind that decisions have typically ruled that all four elements must be provable before an unpreventable employee misconduct defense will be successful.

The issues discussed above are addressed in the MIOSH Act in Section 33(6), which states: "A citation for an alleged violation of this act, an order issued pursuant to this act, or a rule or standard promulgated pursuant to this act shall be vacated if it is shown that the employer has provided the equipment or training, educated employees regarding use of the equipment or implementation of the training, and taken reasonable steps including, where appropriate, disciplinary action to assure that employees utilize the equipment and comply with the training as referenced in this section."

Additional information regarding these issues can be found in; Rothstein, *Occupational Safety and Health Law*, 3<sup>rd</sup> Edition, West Publishing, St. Paul Minnesota.

Questions may also be directed to the **MIOSHA Appeals Division** at **517.322.1297**. ■

# Johnson Technology's Norton Shores Facility Receives State's Rising Star Award

On Dec. 13, 2003, Johnson Technology, Inc.'s Norton Shores Plant received the prestigious Michigan Voluntary Protection Program (MVPP) **Rising Star Award** for workplace safety and health excellence from the Michigan Occupational Safety and Health Administration (MIOSHA). The MIOSHA program is part of the Michigan Department of Labor and Economic Growth (DLEG).

"We are delighted to welcome Johnson Technology's Norton Shores facility into this exceptional group of Michigan companies who have outstanding workplace safety and health programs," said MIOSHA Deputy Director Martha Yoder. "We applaud the safety and health leadership exhibited at this facility."

The MIOSHA Consultation Education and Training (CET) Division established the MVPP program to recognize employers actively working toward achieving excellence in workplace safety and health. It was created in 1996 to reward worksites that develop and implement outstanding safety and health management systems that go beyond MIOSHA standards.

**MIOSHA Deputy Director Martha Yoder** presented the MVPP Rising Star Award to **David M. Yacavone, President**, who accepted the award on behalf of all 87 associates at a gathering of employees from both the Norton Shores Plant and the Latimer Plant, which received the MVPP Star award in 2003.

"MVPP Star" must have Incidence Rates and Lost Work Day Rates below the Michigan average for their SIC Code for three years. The Norton Shores SIC Code is 3724, Aircraft Engines and Engine Parts, and their rates are below the industry average for two years, which qualifies them for the "Rising Star" Award.

The Total Case Incidence Rate for the Norton Shores Plant was 4.5 in 2001, and 2.2 in 2002—compared to 6.4 and 6.4 respectively, for the Bureau of Labor Sta-

tistics (BLS) industry average. The Total Lost Work Day Cases for the Norton Shores Plant was 0.0 in 2001, and 0.0 in 2002—compared to 2.8 and 2.8, respectively for the BLS industry average.

The MIOSHA MVPP Review Team found the Norton Shores facility met all the MVPP requirements and that all MIOSHA standards were appropriately covered. This facility has an excellent safety and health management system in place, and all required elements are consistent with the high quality expected of MVPP sites.

Areas of excellence at the Norton Shores facility include:

- All machines have appropriate ventilation,
- Efforts are made to keep all parts at waist level, in order to promote good ergonomics,
- Lockout/Tagout procedures are posted at all machines,
- Employees have many opportunities to be involved in the safety process, and
- A Job Safety Analysis (JSA) has been performed for each work process, with monthly audits.

The Norton Shores Plant produces turbine nozzle segments and turbine nozzle assemblies for aircraft gas turbine engines. Their 87 associates annually manufacture over 18,000 jet engine components for use in several different types of commercial and military aircraft engines. ■



(Front) Quenten Yoder, Darlene Green, JenelleThelen, Dave Yacavone, Martha Yoder, Scott Ingersoll, Kari Helsen, George Peloso, Joe Helsen. (Back) Jack Veen, Felix Adame, Mark Anderson, Brian Shaw, Dave Reagan, Deb Gorkisch, Doug Kimmell.

## Electrocution Fatalities

Cont. from Page 1

### MIOSHA Citations

The MIOSHA Construction Safety and Health Division conducted the accident investigation. MIOSHA regulations require employers to take precautions when cranes are operated near overhead power lines.

Construction Safety Standard, Part 10, Lifting and Digging Equipment, Rule 1023a requires maintaining 10 feet minimum distance from live overhead wires up to 50 KV (kilovolt), de-energizing the wires, or installing an insulated barrier.

On Jan. 27, 2004, MIOSHA cited Klee Construction Company, St. Clair Shores, for one willful violation, six serious violations and five other-than-serious violations, with penalties totaling \$16,950, following the investigation of the double electrocution.

The employer received the willful violation because he knew power lines were obstructing the storage area; was aware of the height of the traveling hoist; and had not adequately trained the crane operator or crew. Company officials took no action to remove or de-energize the power lines or to take other precautions to protect their workers from the electrical hazard.

“This double tragedy should never have happened,” said MIOSHA Director Doug Kalinowski. “The electrocution of these two workers could have been prevented if the company had required operators to maintain a safe distance from the power lines.”

The willful and serious citations issued against the company for failing to protect workers from potential hazards are:

**R408.41023 (a)(1) – Willful**

*Not maintaining clearances to energized lines, minimum of 10 feet.*

**R408.41005 (a)(3) – Serious**

*Not in compliance with ANSI B30.5-3.4.5.3 regarding use of cranes around power lines.*

**R408.41009 (a)(1) – Serious**  
*Inadequate operator training.*

**R408.40822 (1) – Serious**  
*Material stored directly under energized lines.*

**R408.40836 (3) – Serious**  
*Open hook used to lift material.*

**R408.41932 (2) – Serious**  
*Blade guard of circular saw wedged in up position.*

**1926.501 (b)(13) – Serious**  
*No fall protection for residential work.*

The company has 15 working days from receipt of the citations and notices to comply or contest the violations and penalties.

### NIOSH Recommendations

In May 1995, the National Institute for Occupational Safety and Health (NIOSH) published an Alert, *Preventing Electrocutions of Crane Operators and Crew Members Working Near Overhead Power Lines* (Publication No. 95-108), to address the seriousness of this construction hazard, due to 113 electrocutions involving cranes and overhead power lines between 1985 and 1989.

NIOSH investigations suggested that employers, supervisors, and workers may not be fully aware of the hazards of operating cranes near overhead power lines or may not implement the proper safety procedures for controlling these hazards.

The Alert describes five cases (six electrocutions) that resulted from such hazards and makes recommendations for preventing similar incidents. NIOSH stated that all employers, managers, supervisors, and workers in companies that use cranes or similar boomed vehicles should follow the recommendations in the Alert. The Alert can be found on the NIOSH website at: [www.cdc.gov/niosh](http://www.cdc.gov/niosh).

### Lifting Requirements

American National Standards Institute (ANSI) B30.5 - 1994 is a consensus standard for Mobile and Locomotive Cranes. This standard contains guidelines for operating near electric power lines and has been adopted by MIOSHA by reference in Part 10, Rule 1005a.

The ANSI requirements address crane operation within the prohibited zone, with the power lines energized. The prohibited zone is established by adding at least 10 feet on each side of an ener-

gized power line.

These requirements include:

- An on-site meeting between the project manager and a qualified representative of the utility.

- Maintaining proper clearances, 10 feet minimum up to 50 KV.

- Use of a non-conductive tag line to control loads.

- A qualified signal person at the site whose sole responsibility is to verify that required clearances are maintained.

- No one is permitted to touch the crane until the signal person indicates it is safe.

- Avoid operating over power lines.

- Minimum clearances from power lines may need to be increased due to increased voltage, line length or wind conditions.

- The installation of visible devices to improve visibility and aid in the location of the prohibited zone.

- Signs at the operator’s station and on the crane warning of electrical hazards if clearances are not maintained.

- If cage-type boom guards, insulating links, or proximity warning devices are used, these devices shall not be a substitute for maintaining safe clearances.

In addition, MIOSHA regulations address storage of materials under power lines. Construction Safety Standards, Part 8, Storage of Material, Rule 822 requires a minimum clearance from power lines of 10 feet plus the length of the material stored, up to 50 KV. This is again stated in Part 10, Lifting and Digging Equipment, Rule 1023a. The industry that installs and maintains overhead power lines identifies this hazard and prohibits storage under power lines in Part 16, Power Transmission and Distribution, Rule 1643(5).

### If Contact Occurs

The Construction Safety Association of Ontario, Canada (CSA), recommends additional safe work procedures to protect against electrical shock, should contact occur.

- The crane operator should remain inside the cab.

- All other personnel should keep away from cranes, ropes, and loads since the ground around the crane might be energized.

- The crane operator should try to remove the crane from the contact by moving in the reverse direction from that which caused the contact.

- If the crane cannot be moved away from the contact, the operator should remain inside the cab until the lines have been de-energized. If you have to get out, jump! Do not step down.

In conclusion, crane handling and storage of materials near overhead power lines are conditions that require certified training and extreme awareness. Non-compliance with these minimum requirements can result in the ultimate workplace injury, **Death**. ■



Two Klee Construction Company workers were electrocuted while raising trusses to the second story of a residential construction site in St. Clair Shores.

## Employee Discrimination

*Cont. from Page 10*

complaint was filed untimely, and the employee's conduct was the reason for the suspension. The employee appealed and the Administrative Law Judge, after hearing testimony from all parties, issued an order upholding the MIOSHA decision.

**Workplace Violence Zero Tolerance Policy** – In this case, the employer had a workplace violence zero tolerance policy and terminated an employee for threatening a co-worker with bodily harm. MIOSHA found the termination was justified.

The employee appealed and after a very lengthy hearing, the Administrative Law Judge reversed the MIOSHA order and ordered full reinstatement, including back pay with interest. The employer and MIOSHA appealed to both the circuit and appellate court. The case was finally settled, with the employee being reinstated and receiving a large monetary award.

**Termination of a Sick Employee** – An employee became ill when construction was going on at her worksite, i.e. dust, noise and mold. The employee was off more than 12 weeks and the employer terminated her when she exhausted her Family Medical Leave Act (FMLA) credits.

Upon receiving notice that an investigation would take place, the employer offered a severance package to the employee, which she declined. MIOSHA investigated, and found no

merit to her charge. The employee filed an appeal and a settlement was reached during the hearing process. The employee received a monetary settlement, but waived reinstatement.

**Termination for an Employee Absence** – In another complaint, a worker voiced concerns of unsafe conditions and told his employer he was going to contact MIOSHA. The employee requested a day off in conjunction with a holiday, which was granted. Upon his return to work, he was written up and discharged for being absent the day prior to the holiday.

During the MIOSHA investigation, a settlement was reached and MIOSHA did not issue a decision. The employee received a monetary settlement, but waived reinstatement.

**Unsafe Diving Conditions** – During an offshore diving operation in Lake Michigan, a contractor was laying intake and discharge pipe for a large utility generating plant. One diver complained that compression rules were not being followed and barges were dumping dirt near the work area, causing a force that pushed the divers and decreased visibility.

The complaining diver was terminated. MIOSHA investigated and argued against four motions filed by the employer. MIOSHA prevailed on all counts and ordered appropriate relief. The employer appealed and during the extended

hearing process, two witnesses became unavailable. MIOSHA again prevailed, and a generous settlement was reached for the diver. The complainant is now diving for an oil company in Argentina.

## Employee Discrimination Section

The MIOSHA Employee Discrimination Section is recognized as one of the national leaders in protecting employee rights. According to federal OSHA, MIOSHA has one of the fastest turnaround times in the nation. Complaints are normally resolved in three months.

Staff with the Discrimination Section have served as speakers and facilitators at joint federal/state training seminars. They have also served on over-site committees in Washington D.C., and assisted in writing federal and state policy in the area of discrimination.

To reach this level of efficiency, Employee Discrimination Section staff must have a thorough knowledge of the MIOSHA discrimination provision, as well as more than 16 other statutes covering various aspects of employee discrimination. While reviewing complaints, staff must be able to identify the appropriate statute, docket those that are appropriate to MIOSHA, and make referrals to other agencies as appropriate.

If you have any questions about employee discrimination under MIOSHA, please contact the **Employee Discrimination Section** at **248.888.8777**. ■

## Cold Hazards

*Cont. from Page 11*

suspected of being moderately or severely hypothermic.

If the person is unresponsive and not shivering, assume he or she is suffering from severe hypothermia. Reduction of heat loss can be accomplished by various means: obtaining shelter, removal of wet clothing, adding layers of dry clothing, blankets, or using a pre-warmed sleeping bag.

For mildly hypothermic cases or those more severe cases where medical treatment will be significantly delayed, external rewarming techniques may be applied. This includes body-to-body contact (e.g., placing the person in a prewarmed sleeping bag with a person of normal body temperature), chemical heat packs, or insulated hot water bottles. Good areas to place these packs are the armpits, neck, chest, and groin. It is best to have the person lying down when applying external rewarming. You also may give mildly hypothermic people warm fluids orally, but avoid beverages containing alcohol or caffeine.

## Preventing Cold-Related Disorders

**Personal Protective Clothing** is perhaps the most important step in fighting the elements

is providing adequate layers of insulation from them. Wear at least three layers of clothing:

- An outer layer to break the wind and allow some ventilation (like Gore-Tex® or nylon).

- A middle layer of wool or synthetic fabric (Qualofil or Pile) to absorb sweat and retain insulation in a damp environment. Down is a useful lightweight insulator; however, it is ineffective once it becomes wet.

- An inner layer of cotton or synthetic weave to allow ventilation.

Pay special attention to protecting feet, hands, face and head. Up to 40 percent of body heat can be lost when the head is exposed. Footgear should be insulated to protect against cold and dampness. Keep a change of clothing available in case work garments become wet.

**Engineering Controls** in the workplace through a variety of practices help reduce the risk of cold-related injuries.

- Use an on-site source of heat, such as air jets, radiant heaters, or contact warm plates.

- Shield work areas from drafty or windy conditions.

- Provide a heated shelter for employees who experience prolonged exposure to equivalent wind-chill temperatures of 20°F or less.

- Use thermal insulating material on equipment handles when temperatures drop below 30°F.

**Safe Work Practices**, such as changes in work schedules and practices, are necessary to combat the effects of exceedingly cold weather.

- Allow a period of adjustment to the cold before embarking on a full work schedule.

- Always permit employees to set their own pace and take extra work breaks when needed.

- Reduce, as much as possible, the number of activities performed outdoors. When employees must brave the cold, select the warmest hours of the day and minimize activities that reduce circulation.

- Ensure that employees remain hydrated.

- Establish a buddy system.

- Educate employees to the symptoms of cold-related stresses: heavy shivering, uncomfortable coldness, severe fatigue, drowsiness, or euphoria.

The quiet symptoms of potentially deadly cold-related ailments often go undetected until the victim's health is endangered. Knowing the facts on cold exposure and following a few simple guidelines can ensure that this season is a safe and healthy one. ■

# How To Contact MIOSHA

**MIOSHA Complaint Hotline** 800.866.4674  
**Fatality/Catastrophe Hotline** 800.858.0397  
**General Information** 517.322.1814  
**Free Safety/Health Consultation** 517.322.1809

**Director** 517.322.1814 **Doug Kalinowski**  
**Deputy Director** 517.322.1817 **Martha Yoder**

DIVISION	PHONE	CHIEF
Appeals	517.322.1297	Diane Phelps
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	517.322.1817	John Peck

OFFICE	PHONE	MANAGER
Asbestos Program	517.322.1230	George Howard
CET Grant Program	517.322.1865	Jerry Zimmerman
Employee Discrimination Section	248.888.8777	Jim Brogan
MIOSHA Information Systems Section	517.322.1851	Bob Clark
Standards Section	517.322.1845	Marsha Parrott-Boyle

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 and provide us with your mailing address. Also if you are currently a subscriber, please take the time to review your mailing label for errors. If any portion of your address is incorrect, please contact us at the above number.



**Michigan Occupational Safety and Health Administration**  
**Director: Douglas J. Kalinowski**

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