MIOSHA NEWS

Vol. 14, No. 4 Fall 2010

Worker Deaths on the Rise in 2010

By: Martha Yoder, Deputy Director

In contrast to an overall downward trend, workplace deaths are on the rise this year in Michigan. From January through August 2010, **22 workers died** in MIOSHA program-related incidents. This is eight more than occurred last year during the same time period.

The families, friends and co-workers of these 22 people have our sympathy. Nothing can bring these people back, but we can learn lessons from what has happened to prevent a similar tragic incident.

Six of the fatalities were electrocutions. MIOSHA issued a press release August 30, urging employers to follow MIOSHA rules at every worksite where electrical hazards are present.

A 40-year-old plumber was replacing a sewer line when a cave-in occurred.

General Industry - 18 Fatalities

Fall:

A **33-year-old laborer** fell from an ATV tailgate. **Recommendations:** Prohibit employees from riding on tailgate. Provide training.*

A **66-year-old maintenance worker** fell off a ladder and down steps while changing a light bulb.**

A **47-year-old loader** was installing a bridge plate between rail cars and was found on the ground unconscious.**

A **41-year-old dining server** slipped on icy steps while taking out garbage causing a broken ankle and a pulmonary embolism from surgery.*

Crushed:

A **44-year-old cabinet maker** was crushed by loosely stacked wooden planks that fell from a forklift. **Recommendations:** Provide valid permit. Ensure loads are within rated capacity, forks are fully lowered, controls neutralized, brakes set and power shut off when leaving forklift.

A **19-year-old laborer** was crushed by a vehicle that fell from a tow truck.*

A **49-year-old mechanic** was crushed while repairing a skid loader.*

Asphyxiation:

17- and 18-year-old laborers entered a tank from the top to clean it and were overcome.*

Burn/Explosion:

A **59-year-old maintenance worker** was cutting a metal rod with a chop saw when an explosion occurred. A spark may have entered a 55-gallon drum. **Recommendations:** Store flammable or combustible liquids in tanks or closed containers. Ensure precautions to prevent ignition of vapors.

Drowned:

A **33-year-old landscaper** was found in a trench under a lawn mower. **Recommendations:** Provide training. Prohibit operating defective equipment. Do not operate on slopes.

Electrocution:

A **41-year-old lineman** was performing maintenance on a telephone cable when a primary electric line overhead came loose and landed on him.*

A **28-year-old laborer** was picking weeds in a potato field and collapsed. Autopsy indicated electrocution.*

A **46-year-old maintenance worker** was working on a mobile conveyor system which was raised to allow the employee to lube it and came in contact with high voltage lines.*

A **54-year-old lineman** was working on a utility pole and came in contact with an electric power line.*

A **33-year-old maintenance worker** was possible electrocuted near a roof air conditioning unit.*

Heat Stress: (possible heart attack)

A **46-year-old melter** had finished a pour. He was operating a control panel and removing covers from molds when he collapsed. Possible heart attack, but waiting for the final autopsy report.*

Struck by:

A **53-year-old production operator** was loading pallets from trucks using a PIT. He was found on the ground with a head injury. **Recommendation:** Ensure a clear view of travel is maintained while backing up.

Construction - 4 Fatalities

Cave-in:

A **40-year-old plumber** was replacing an existing sewer line between a residence and alley by working in an excavation when it caved-in.*

Chemical Exposure:

A **52-year-old refinisher** was found unresponsive in a bathroom where he had been refinishing a bathtub. **Recommendations:** Methylene chloride: Perform initial monitoring, do not expose employees in excess of the MAC, implement engineering/work practice controls. Establish program/use respiratory protection. Develop HazCom program.

Crushed:

A **39-year-old operator** was driving a front end loader down a steep embankment when he lost control, was thrown out and landed under the left rear tire. **Recommendations:** Inspect construction site and eliminate hazards, ensure brakes are working and seat belts worn.

Electrocution:

A **49-year-old laborer/welder** was electrocuted while welding on a metal floating dock.*

**These fatalities are under investigation.*
***No witnesses. No citations.*

An explosion occurred when a 59-year-old maintenance worker was cutting a metal rod.

10 Most Dangerous Jobs in the U.S.

This information from the *Bureau of Labor Statistics* shows the 10 most dangerous jobs in the U.S., as defined by the number of fatalities per 100,000 workers. The list also includes the most common cause of death.

1. **Fishers & related fishing workers**
   Fatalities per 100K: 200
   Cause: Transportation incidents
2. **Logging workers**
   Fatalities per 100K: 61
   Cause: Contact with objects & equipment
3. **Airline pilots & flight engineers**
   Fatalities per 100K: 57
   Cause: Transportation incidents
4. **Farmers & ranchers**
   Fatalities per 100K: 38
   Cause: Transportation incidents
5. **Roofers**
   Fatalities per 100K – 34
   Cause: Falls
6. **Structural iron & steel workers**
   Fatalities per 100K – 30
   Cause: Contact with objects & equipment
7. **Refuse & recyclable material collectors**
   Fatalities per 100K - 200
   Cause: Transportation incidents
8. **Industrial machinery installation, repair, & maintenance workers**
   Fatalities per 100K – 18
   Cause: Contact with objects & equipment
9. **Drivers/sales workers & truck drivers**
   Fatalities per 100K – 18
   Cause: Transportation incidents
10. **Construction laborers**
    Fatalities per 100K – 18
    Cause: Falls

Doug Kalinowski, CIH
Director

State Programs Add Value

Since the last issue of the MIOSHA News, many events related to workplace safety and health have occurred in Michigan. Including:

- Work-related fatalities, especially electrocutions, spiked in recent months;
- A disastrous oil spill near Marshall, that stretched nearly 30 miles;
- The Attorney General filed criminal charges against a construction employer following a fatal fall;
- MIOSHA completed revisions to its Field Operations Manual (FOM) that provides an overall guide to how we operate;
- Nine companies were recognized for their exemplary efforts to protect their workers;
- The MIOSHA Training Institute continued to grow, with more than 6000 participants; and
- In honor of our 35th anniversary, "Coffee with MIOSHA" events were held at 35 coffee shops across the state.

All of this happened in addition to the work MIOSHA staff does every day: conduct enforcement investigations/inspections; provide free consultation visits; collect and study data that guides our strategic plan; and operate an accredited, full-service analytical laboratory.

MIOSHA's diverse array of approaches, tools and skills; staff dedication and commitment; and strong connections to Michigan's employers and workers; clearly demonstrate the value of a state-operated safety and health program.

Enbridge Oil Spill

On July 26th, an oil pipeline near Marshall ruptured causing oil to spill into the Talmadge Creek, the Kalamazoo River, and the surrounding areas. At the request of the U.S. Environmental Protection Agency (EPA), MIOSHA activated its 24-member **Disaster Response Team (DRT)** to help ensure the protection of the employees responding to the spill.

For more than ten weeks, several DRT members worked daily with the contractors on the site to identify hazards before they resulted in worker injuries or illnesses. They also worked closely with staff from federal OSHA, who were on site to address hazards for federal employees.

MIOSHA staff focused on: appropriate hazardous waste training, personal protective equipment, safe work practices, heat stress, and airborne chemical exposures. More than 300 hazards were identified and promptly corrected. This is especially remarkable considering the work was: specialized, conducted in remote areas, involved construction of roads and excavations, entailed working over and near water, and spanned nearly 30 miles. We are very proud of the protection provided by our DRT members.

Fatalities can be Prevented

As discussed in the cover article, work-related deaths this year are already approaching the total for 2009. So far, there have been six fatalities related to electrical hazards. While we continue to study the data for patterns to focus our resources on prevention, we issued an alert after three electrocutions occurred in one week.

> ***"The facts show that most, if not all, workplace "incidents" can be prevented!"***

MIOSHA stresses that these fatalities are tragic **"incidents"** that dramatically impact families, coworkers and employers. The term **"accidents"** implies there was nothing that could prevent them. The facts show that most, if not all, workplace **"incidents"** can be prevented!

On the positive side, many employers and employees across Michigan have "figured out" that maintaining a strong, prevention-focused workplace safety and health system is not only the "right thing to do," but results in a remarkably positive impact on their bottom line.

During the past few months, MIOSHA has recognized these employers and their employees for their work to ensure that everyone goes home safe every day. It is no small task and we salute all employers who make such remarkable efforts.

MIOSHA will continue to work with employers and employees in a variety of ways across Michigan to reach the ultimate goal of "zero injuries, zero illnesses and zero fatalities."

Number One Mandate: Protect Your Workers!

There is no doubt about it; work involves risk. Every day in the United States 14 workers die on the job and every year more than four million workers are seriously injured or become ill due to on-the-job exposures.

The number one "must do" for all who have responsibility for safety and health absolutely must be implementing systems to keep workers safe on the job. This is true whether your title is owner, plant manager, supervisor, safety director or worker.

It takes the collective efforts of every person to create and maintain a safe work environment. And, the effort is worth it! Without ongoing diligence, tragedy can happen in a split second – causing long lasting devastation and grief. There are just no words to describe the pain and despair that follow a death in the workplace.

During a memorial for the miners who lost their lives at Big Branch Mine, **President Barak Obama** asked, "How can we let anyone in this country put their lives at risk by simply showing up to work, by simply pursuing the American dream?" The answer is that we cannot. Rather, we must take action to insure that risk is mitigated, eliminated or controlled.

The cover article provides the unfortunate details of 22 fatal workplace incidents. We are urging all employers, in all industries, to do everything in their power to identify and eliminate hazards and exposures in order to keep their workers safe and healthy on the job.

Fatality Generated Culture Change

We recently held a ***"Leaders on Leading"*** panel with leaders from outside MIOSHA sharing their experiences. The stories were powerful.

One leader, a plant manager at a large stamping facility, bravely shared the effects of a death at his workplace. He described the turmoil and mourning that followed. He said that following this workplace death, he undertook a review of every aspect of their workplace. They questioned every policy, practice, and measure to reduce risks and identify potential hazards.

"Coffee with MIOSHA" at the Novi BIGGBY.

Martha Yoder
Deputy Director

It was a massive undertaking and led to changing every safety practice and policy. Once the plan was developed, his job was to "preach it and do it out on the floor." He emphasized that it is not good enough to have a policy or process. You must know that it is in place and actively being followed. Ultimately a more inclusive culture was created.

Conduct an Exercise to Increase Safety

Why not do this right now at your workplace? Conduct an exercise using a case study incident to identify where your workplace is vulnerable. Create a plan to address any vulnerabilities and set your plan in motion!

If it seems overwhelming, there is assistance. MIOSHA has resources that are available and free for the asking. MIOSHA offers employers and workers a wide range of customized consultation, education and training (CET) services. CET services are customized to address the specific needs of a workplace. This expertise is available to every employer in the state of Michigan. All you have to do is ask!

Coffee with MIOSHA

MIOSHA recently held a first-ever "Coffee with MIOSHA" at 35 sites around the state, at 25 BIGGBY coffee shops and 10 independent coffee shops. More than 350 employers and workers accepted our invitation to come and talk with a MIOSHA representative to learn more about resources, requirements and help that is available.

Being proactive can prevent tragedy and improve the quality of work life. Studies have shown that improvements in workplace safety and health have tremendous benefits in addition to being the right thing to do. These benefits include increased productivity, lower absenteeism, lower turnover, improved morale, respect in the community, and becoming an employer of choice.

Hastings Manufacturing Fined $118,750 for Health & Safety Hazards

On June 30, 2010, MIOSHA cited **Hastings Manufacturing Company, LLC,** of Hastings, with $118,750 in proposed penalties for allegedly failing to adequately protect employees from serious health and safety hazards.

"The conditions found during the MIOSHA inspection were very serious. It is imperative that Hastings Manufacturing Company correct the serious health hazards which are endangering their employees," said DELEG Director Stanley "Skip" Pruss. "They must fulfill their obligations under the MIOSH Act and provide a safe and healthy work environment for their employees."

Joint GISHD Inspection

The company designs and manufactures piston rings for the engine manufacturing and remanufacturing industries and employs about 185 workers. The Hastings plant is considered a high-hazard facility, based on the type of work being performed. The current owners acquired the company in 2005.

During this stainless steel pouring operation workers are exposed to metals.

The MIOSHA General Industry Safety and Health Division (GISHD) conducted a planned, joint safety and health inspection at Hastings Manufacturing Company.

On December 22, 2009, a GISHD safety compliance officer began a safety inspection at the company. The safety inspection identified nine Serious violations involving unguarded machinery, with a total penalty of $3,750. These citations were issued on January 27, 2010. The company has abated all safety items, did not appeal the citations and paid the penalty.

Serious Health Hazards Identified

On January 5, 2010, a GISHD health compliance officer began a health inspection at the company. The inspection identified numerous violations of the following MIOSHA standards:

- Hexavalent chromium,
- Dipping and coating operations,
- Asbestos,
- Formaldehyde, and
- Noise.

The most serious violations involved employee overexposures to highly hazardous air contaminants. The health inspection identified seven Willful Serious, four Serious, and three Willful Other-than-Serious violations, with a total penalty of $115,000.

Exposures to hexavalent chromium can occur among workers handling pigments, spray paints and coatings containing chromates; operating chrome plating baths; and welding or cutting metals containing chromium, such as stainless steel. Workers breathing hexavalent chromium compounds in high concentrations over extended periods of time may risk developing lung cancer, irritation or damage to the eyes and skin, and an allergic reaction that can result in occupational asthma.

Failure to maintain deteriorated asbestos products, as well as improper removal and/or disturbance of asbestos, can cause asbestos fibers to become airborne. Inhalation of airborne asbestos fibers can cause lung cancer, a lung disease known as "asbestosis," and mesothelioma, a cancer of the chest and abdominal cavities.

Legal Responsibility to Protect Workers

"Employers have a legal responsibility to protect their workers, especially when they're working with hazardous materials such as hexavalent chromium and formaldehyde," said MIOSHA Director Doug Kalinowski. "We strongly encourage companies to use all available resources to ensure the safety and health of their workers."

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

The company utilized an Informal Settlement Agreement to settle the health inspection.

Clean Air Insulation Fined $63,750 for Asbestos Hazards

On June 14, 2010, MIOSHA cited Clean Air Insulation, of Redford, with $63,750 in proposed penalties for allegedly failing to adequately protect employees and the general public from serious asbestos hazards at the Village Plaza building in Dearborn.

Asbestos Abatement

Clean Air Insulation was hired to perform asbestos abatement at the Village Plaza building in Dearborn, and yet they did not carry out the work in a manner that would assure protection of their workers or the public. Furthermore, the company did not possess a license to perform asbestos abatement work, and did not utilize accredited asbestos abatement workers to perform the work.

Improper removal and/or disturbance of asbestos can cause asbestos fibers to become airborne. Inhalation of airborne asbestos fibers can cause:

- Lung cancer,
- A lung disease known as "asbestosis," and
- Mesothelioma, a cancer of the chest and abdominal cavities.

MIOSHA Asbestos Standards require a survey at all worksites involving pre-1981 buildings where asbestos may be contacted or before construction work subject to the standards begins. It is the employer's responsibility to obtain and review the building survey prior to conducting any work activities that may involve contact and/or disturbance of asbestos-containing material (ACM). The standards require that workers are adequately trained, and detail the proper maintenance, removal and handling of ACM.

Asbestos Investigations

On February 3, 2010, the MIOSHA Asbestos Program began a complaint investigation involving an allegation that asbestos material was being improperly removed at the Village Plaza building in Dearborn. The building is owned by DM Associates, and was undergoing renovations under the direction of general contractor Ronnisch Construction Group. DM Associates hired Clean Air Insulation to perform the asbestos abatement work.

Clean Air Insulation is owned by Steven Theriault, who has a long history with the MIOSHA Asbestos Program. He initially worked for Atlas Service Company, Inc., owned by his father, Joseph Terrio. Atlas had an extensive citation history that ultimately led to a settlement agreement in which Terrio surrendered his license as an asbestos abatement contractor on July 16, 2003, and Theriault agreed he would not seek his own asbestos contractor's license until July 16, 2005.

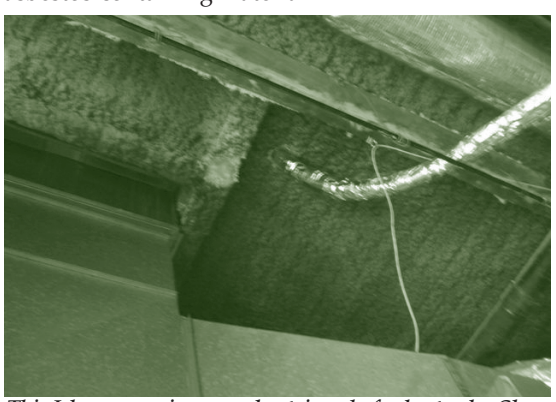
In October 2005, a MIOSHA Asbestos Program investigation found that Clean Air Insulation was performing asbestos abatement work without a license at a private residence. In addition, a number of asbestos work violations were identified and penalties totaling $14,000 were issued.

Asbestos Violations

In the current investigation, Clean Air Insulation was again found performing asbestos abatement work on the property of another person without an asbestos abatement contractor's license. A number of violations of the MIOSHA asbestos standards were identified. MIOSHA also identified three violations of the Asbestos Abatement Contractors Licensing Act and the Asbestos Worker Accreditation Act.

MIOSHA proposed nine Serious Willful violations because of the citation history of both Clean Air Insulation and Atlas Service Company. Some of the Serious Willful violations included:

- No monitoring performed to determine employee exposure;
- Work not conducted in a regulated area;
- Appropriate engineering and work practice controls not used during asbestos removal;
- No decontamination area provided for employees conducting asbestos work; and
- Employees not informed of the presence of asbestos-containing material.



This I-beam was improperly stripped of asbestos by Clean Air Insulation.

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ARRA Projects Require Asbestos Awareness

By: George Howard, Asbestos Program Manager

Many cities throughout Michigan are receiving ***American Recovery and Reinvestment Act (ARRA)*** funds to demolish vacant/deteriorating housing and other structures to improve city environments.

Legal Responsibility

Too often these cities and the companies performing the demolition work are unaware of the MIOSHA asbestos regulations that come into play and the specific requirement to conduct an asbestos building survey in pre-1981 structures **prior to** initiating a demolition/renovation project.

Employers have a legal responsibility to protect their workers and the general public from the hazards associated with improper removal and/or disturbance of asbestos containing material.

Construction trades routinely renovate and demolish buildings; consequently, asbestos may be disturbed, causing asbestos fibers to become airborne. Not only does this expose construction employees and the general public to a significant potential health hazard, it can also expose the company involved to substantial legal liabilities. Past experience indicates that much of the exposure is linked to workers who unknowingly remove or disturb asbestos-containing materials.

Asbestos Symposium

To address these concerns, the MIOSHA Asbestos Program and Department of Natural Resources and Environment (DNRE) co-sponsored a day-long symposium on May 6th titled, **"Michigan Asbestos Symposium for Trainers/Contractors."** The symposium provided the latest program information on a wide range of asbestos issues.

Over 200 people attended, including asbestos trainers, asbestos abatement contractors, general contractors, demolition contractors, city and municipal representatives, university and school personnel, and other interested parties.

During the symposium, MIOSHA introduced a newly created **decision tree** that will assist both trainers and contractors in recognizing the MIOSHA asbestos regulations that apply to renovation and demolition projects involving asbestos.

The symposium PowerPoint and decision tree chart are on our website at www.michigan.gov/asbestos.

The CET Division is sponsoring six **"Asbestos and Lead Awareness"** seminars during fiscal year 2011. Information is available at www.michigan.gov/mti.

Attendees at the asbestos symposium held on May 6th.

Region 5 OSHA Leaders Tour Accident Fund Project

By Patty Meyer, CSHD Safety Manager

On August 2 through 4, 2010, representatives from federal OSHA, and the states in *OSHA Region 5* (Indiana, Illinois, Michigan, Minnesota, Ohio and Wisconsin), held their annual meeting in Lansing. They met to share information, create consistency among the states and discuss federal and state safety and health expectations.

As part of the meeting, Michigan, as the host state, invited The Christman Company to present information on the transformation of the Lansing Board of Water and Light's former Ottawa Street Power Station (a National Register Historic Building) into the Accident Fund Headquarters. MIOSHA and Christman have a formal partnership for this project, and their presentation focused on the significant factors that have made this partnership a success.

After the presentation the group toured the project. Representatives from federal OSHA and the other states were impressed with the programs, policies and cooperation that have made this project a model of good safety and health practices.

"This was a great opportunity for Christman and MIOSHA to showcase the benefits of the partnership approach to the other Region 5 states and illustrate what it brings to safety and health and the creation of safe work practices," said Don Staley, Safety Manager, The Christman Company.

Christman and MIOSHA also recognized the contractors on this project for their continued efforts at creating a safe work environment and for working 636 days (607,500 man-hours) without a lost time accident.

Region 5 OSHA leaders tour the Accident Fund Headquarters construction site.

Barton Malow Partnership

On September 1st MIOSHA signed our 9th construction partnership with Barton Malow Company to protect workers at Severstal NA in Dearborn. Signing partners also included the Greater Detroit Building and Construction Trades Council and their affiliate unions, and the partnering subcontractors.

The partnership goal is enhanced safety and health protection and **zero injuries** for workers on this major modernization project.

Barton Malow Company is working with Severstal to resume their modernization program on the Pickle Line Tandem Cold Mill (PLTCM) and Hot Dip Coating Line (HDCL) at their Dearborn facility. This project will provide Severstal NA with expanded product capability.

"We are proud and grateful to be a part of the Severstal project," said **Ryan Maibach,** Vice President of the Barton Malow Company Industrial Group. "Communicating our partnership is the best way to demonstrate our commitment to work safely and protect everyone involved."

In addition to serving as Severstal's General Contractor for the PLTCM project and Construction Manager for the HDCL project, Barton Malow will be performing all civil, earthwork, concrete and mechanical installation services.

Partnerships are an important emphasis in MIOSHA's Strategic Plan to improve the health and safety of workers through cooperative relationships with groups, including trade associations, labor organizations, and employers. Partnerships move away from traditional enforcement methods and embrace collaborative agreements.

Information on all MIOSHA alliances and partnerships is available on our website at www.michigan.gov/alliance.

CASE SUMMARIES

REFINISHER – OVEREXPOSURE FATALITY

On March 1, 2010, an employee using a chemical stripper to refinish a bathtub died from an overexposure to methylene chloride (MeCl), as determined by the medical examiner. No mechanical ventilation was provided to the bathroom and the employee was not wearing respirator protection. MIOSHA calculations determined minimum potential exposures ranging from 11,400 ppm - 19,000 ppm, far in excess of the immediately dangerous to life or health (IDLH) concentration of 2300 ppm.

MIOSHA Violations of Part 313, *Methylene Chloride* (not inclusive):

- Rule 1910.1052(c)(1) – Exceeding the PEL.
- Rule 1910.1052(d)(2) – No initial exposure determination.
- Rule 1910.1052(e)(3) – Respirator usage.
- Rule 1910.1052(l)(1) – Information and training.

OPERATOR – CRUSHED BY FATALITY

In May 2010, a 39-year-old operator was killed while operating a front end loader. The operator was traversing down a steep grade with rough terrain, while site clearing for a construction project. He was bounced around and ejected out the windshield and the loader ran over him. After the accident it was found that the hydraulic fluid reservoir was empty, affecting the brake system.

MIOSHA Violations of Part 13, *Mobile Equipment* (not inclusive):

- Rule 1926.602(a)(4) A service brake system shall be capable of stopping and holding equipment that is full loaded.
- Rule 1926.602(b)(1) Seat belts shall be provided on all equipment covered by this section.

Recordkeeping Discrimination Complaints

By: Jim Brogan, Manager, Employee Discrimination Section

In fiscal year 2010, the **MIOSHA Discrimination Section** experienced an increase of discrimination complaints filed regarding Part 11, *Recording and Reporting of Occupational Injuries and Illnesses,* Rule 1136.

Rule 1136 states: "Section 65 of the MIOSH Act prohibits you from discriminating against an employee for reporting a work-related fatality, injury or illness. Section 65 of the Act also protects the employee who files a safety and health complaint, asks for access to records under this part, or otherwise exercises any rights afforded by this Act."

Upon receiving this type of discrimination complaint, various factors must be considered by MIOSHA prior to conducting an investigation:

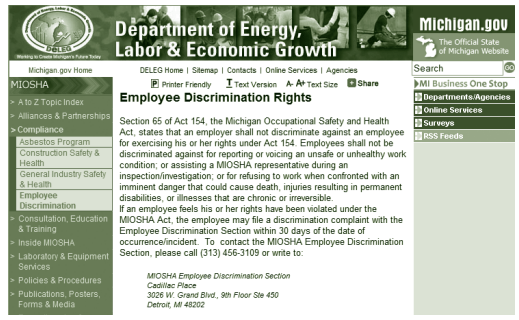
- Did the employer do a thorough investigation of the injury/illness?
- Did the employee contribute to the injury/illness cause by negligence (not using safeguards)?
- Is there a threat of punishment (loss of bonuses, etc.) to the employee?
- Were witnesses interviewed during the investigation of the injury/illness?
- Was action taken to correct the cause of the injury/illness?

Recordkeeping Discrimination Case

MIOSHA investigated one case that found an employer, in an attempt to reduce its workers' compensation cases, took away the employees' bonuses if they had an injury and went to the clinic for treatment. It was found that many employees wouldn't report an injury or illness for fear of losing their bonuses. Of the injuries/illnesses that were reported, very little investigation was done as to the cause of the injury or illness.

The agency issued an order that found the employer violated Section 65 of the MIOSH Act and ordered appropriate relief. The employer appealed the order. During the hearing process MIOSHA negotiated a settlement that granted the four complainants and 120 other employees their lost bonuses.

Information on filing a discrimination complaint is available on the MIOSHA website at www.michigan.gov/mioshacomplaint.



Safety Standard Interpretations

What is a confined space?

As defined by ***1910.146, the Permit-Required Confined Spaces*** standard, a confined space is:

1. Is large enough that an employee can bodily enter and perform assigned work, and
2. Has a limited or restricted means for entry or exit, **and**
3. Is not designed for continuous employee occupancy.

All three of these conditions must be met for the space to be a confined space and the evaluation must take place under normal operating conditions. The standard does not specify the size of the space, but the first criterion does require that the space be large enough for the entire body to enter the space.

Limited or restricted means that employee entry or exit from a space can be created by vertical ladders, small openings, and obstructions such as ductwork or pipes.

An important consideration when evaluating the third criterion is answering these questions:

- Was the space designed for human occupancy?
- Could an employee occupy the space under normal operating conditions?

If either answer is no, then the space is not designed for employee occupancy.

Common examples of spaces that are often confined spaces are tanks, vessels, ovens, silos, storage bins, hoppers, mixing tanks, vaults, bag houses, and pits.

CASE SUMMARIES

MAINTENANCE WORKER - FATAL

In April 2010, an employee was cutting a metal rod with a chop saw. Nearby was a 55- gallon drum of waste oil with a funnel opening. It is believed a spark went into the drum causing an explosion. The employee received burns over 98 percent of his body. An employee entered the building when the explosion occurred, resulting in second degree burns to his hands, legs, and feet.

MIOSHA violations to Part 75, *Flammable and Combustible Liquids*:

- Rule 1910.106(e)(2)(ii) – In an industrial plant, flammable or combustible liquids shall be stored in tanks or closed containers.
- 1910.106(e)(6)(i) – Adequate precautions shall be taken to prevent ignition of flammable vapors.

LANDSCAPER – FATAL

In May 2010, a landscape employee was mowing grass on a steep hillside with an incline between 19-24 degrees on wet grass. The mower slipped and overturned into a water-filled ditch. The employee was trapped and drowned. The mower roll-over protection device had been removed.

MIOSHA violations to Part 54, *Powered Groundskeeping Equipment* (not inclusive):

- No training provided for employees regarding the operating procedures, hazards, and safeguards of powered groundskeeping equipment.
- Powered groundskeeping equipment operated without rollover protection on slopes and in the proximity of water.
- Riding groundskeeping equipment across the face of a slope of more than 17 degrees.

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Enbridge Oil Spill

By: Gerry Dike, Administrator
MIOSHA Disaster Response Team (DRT)

On July 26, 2010, it was reported that an oil pipeline in Marshall, Michigan, owned and operated by **Enbridge Energy, LTD,** had ruptured. The rupture resulted in approximately one million gallons of crude oil leaking into Talmadge Creek and flowing into the Kalamazoo River where it ran through Battle Creek and stretched down to the Kalamazoo area.

The incident triggered the activation of the **State Emergency Operation Center (SEOC)**, as well as the national emergency response framework. Various local, state and federal government agencies converged to the site in Marshall to assist in the emergency recovery activities, including:

- Calhoun County Emergency Management,
- Kalamazoo County Emergency Management,
- Michigan State Police Emergency Management and Homeland Security Division,
- Michigan Department of Natural Resources and Environment (MDNRE),
- U.S. Environmental Protection Agency,
- U.S. Coast Guard, the U.S. Army Corp of Engineers,
- Federal OSHA.

MIOSHA Response

On July 30, 2010, the **MIOSHA Disaster Response Team (DRT)** was activated. MIOSHA DRT members arrived at the site the same day and began providing assistance and support on a consultative basis on issues related to worker safety and health.

Cleanup crews must have specific safety training, skill sets, qualifications and certifications to ensure the safety of the spill site. Additionally, those working within the oil-affected areas are required to wear specific personal protective equipment.

When a MIOSHA DRT member identified potential safety and health issues, the issues were communicated to emergency response employers, contractors, and workers onsite. DRT then worked with the employer and the Unified Command staff to achieve expedited correction of potentially serious hazards. The DRT was deactivated on September 10th.

The Enbridge Marshall Oil Spill incident is the first incident within the State of Michigan that MIOSHA DRT has responded to. The team was happy to be of assistance in the emergency response, recovery, and remediation operations of the incident.

MIOSHA DRT are providing safety and health guidance as recovered oil is being pumped into tank trucks.

Connie O'Neill, Director
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Best Practice: Continuous Hazard Analysis Tool (CHAT)

By: Doug Kimmel, MVPP Program Specialist

Let's "CHAT"

Occidental Chemical Corporation (OxyChem) Ludington, an MVPP site, utilizes a safety analysis tool known as CHAT (Continuous Hazard Analysis Tool). The tool is used to analyze hazards and to heighten awareness of potential hazards at the start of a job and to identify conditions that could arise which would require workers to stop and re-evaluate.

What if Conditions Change?

What about after the job has started? What if the conditions change; something sticks, freezes, or becomes plugged. What if a worker becomes distracted, hurried, or frustrated? What if the weather conditions change? If any changes or unanticipated conditions arise, the site requires that the work be stopped and the hazards or controls be re-evaluated.

The Ludington site was previously owned and operated by The Dow Chemical Company and their Midland site originally developed the CHAT cards process. The process was eventually introduced and integrated into the operations at the Ludington plant.

Since being purchased by OxyChem, the process continues to be utilized. The fact that conditions can change during the work was one of the major drivers for the development and implementation of the CHAT process.

What Makes CHAT Different?

What makes CHAT different than a pre-task or safety task analysis tool? The CHAT tool is used to analyze hazards at the start of a job or task and also requires continual analysis of hazards during the performance of the work.

The first step in the process requires workers to analyze each step of a planned task, identify the potential hazards for each step, and determine how the hazards can be eliminated or mitigated. Finally, workers identify conditions that could arise which would prompt them to stop the work and re-evaluate the hazards and controls.

The intent of CHAT is to raise awareness so that workers continually analyze potential hazards. If they recognize a pre-identified prompt they stop work and re-evaluate the situation.

How is Information Shared?

Finally, OxyChem expects workers to share with others the hazards that they have identified with each step of a task and how they will eliminate or control the hazards. This is accomplished through various means such as the behavior observation feedback process or through group hazard analysis (CHATS) performed by multiple workers before a job starts.

The expectations at the Ludington site are that everyone is doing mental Continuous Hazard Analysis before and as they perform work, and are documenting their thoughts at least weekly on CHAT cards. The cards are reviewed by the site's safety team for quality and completeness and then feedback is given to the employees.

Hazard recognition is where safe behavior begins. OxyChem believes that the CHAT process is one of their best safety behavior tools and has helped them progress towards their goal of an injury-free worksite.

OxyChem employees review the weekly CHAT cards.

MIOSHA News Quiz

Topic: Electrical Hazards

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

MIOSHA Awards

08/05/10 – Gestamp Automoción Lapeer Plant – CET Platinum Award. The Gestamp Lapeer facility has gone nearly six years without a lost-time accident. The facility recognizes that best practices in safety help reduce their costs, and improve not only their safety record, but also overall quality and productivity.

08/18/10 – Olympic Steel Detroit Division – SHARP Award. At Olympic Steel, employee safety is a company core value and a top priority. The Detroit Division employs 100 workers, with some represented by IUOE Local 324. The facility performs blanking, slitting and cutting-to-length of flat rolled steel.

09/16/10 – Palisades Nuclear Power Plant – MVPP Star Award. The Palisades plant employs more than 700 workers, with some represented by UUW Local 150 and SMBCTC AFL-CIO. The facility generates 798 megawatts of electricity, which provides power to millions of homes and businesses throughout Michigan.

Employer Honor Roll

07/19/10–Alro Steel, Grand Blanc–CET Bronze Award

07/30/10–DTE Washington Station–MVPP Rising Star Award

08/24/10–Comau Inc., Novi & Southfield–Five CET Silver Awards

08/26/10–Seimens Industry Inc., Benton Harbor–CET Gold Award

09/17/20–SMS Millcraft, Taylor–CET Gold Award

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

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

Industrial Ventilation Conference
New Section and Workshop Offered

The **60th Annual Michigan Industrial Ventilation Conference** will be held February 7 - 10, 2011, in East Lansing. (Details are located at www.michiganivc.org.)

New for this conference is the ***Operations and Maintenance (O&M)*** section, which has been designed to provide instruction on currently installed industrial ventilation systems.

This new section reinforces material presented in seminar and classroom instruction with extensive hands-on lab sessions on a functioning model of an industrial ventilation system.

The conference will continue to provide three levels of increasingly complex design instruction. The design track courses teach the fundamental principles for economical and efficient design of industrial ventilation systems to control airborne contaminant in the workplace.

Additionally, the conference offers two independent workshops on February 11, 2011. New for 2011 will be a workshop addressing **Combustible Dusts.** The conference will also continue to provide the **Troubleshooting Workshop** as well.

Please contact Gregg Grubb at either 517.322.1822 or grubbg@michigan.gov for further information regarding the conference or the optional workshops.

Ask MIOSHA

Question: Why doesn't MIOSHA issue warnings without a citation or penalty for first-time offenders?

Answer: When the United States Congress passed the federal Occupational Safety and Health Act (OSH Act) in 1970, the OSH Act provided for first time monetary sanctions for violations of the OSH Act or standards promulgated under authority of the OSH Act. **The OSH Act does not allow warnings or waiver of a citation or penalty for first-time offenders.** The citation/penalty process is not viewed as punitive, but as an incentive for employers to comply with safety and health requirements without waiting to use up their first-time waiver if one were to exist.

The Federal OSH Act includes language that allows states to create their own programs for workplace safety and health; such states are said to have a "State Plan Program." The Michigan Occupational Safety and Health Act (MIOSH Act), Act 154 of 1974, as amended, created the Michigan safety and health State Plan Program, administered by the Michigan Occupational Safety and Health Administration (MIOSHA).

For MIOSHA to maintain status as a State Plan Program, we must maintain a program that is deemed to be **"at least as effective as"** programs run in states with federal OSHA jurisdiction. This includes maintaining a compliance program that does not allow waiver of citation/penalty for first time offenders.

Federal OSHA does, however, provide funding for consultative services administered by the states, so employers can request such services at no cost and no citation or associated penalty.

MIOSHA offers an extensive consultation service program administered by the MIOSHA Consultation, Education and Training (CET) Division. Any employer can request the CET Division to help them comply with MIOSHA standards and address safety and health issues in their workplace, free of charge, with no monetary penalties for non-compliance. When requesting consultative services, the employer must agree to correct any hazard that is deemed to be of a serious nature.

To arrange for assistance please contact the Consultation Education and Training Division on the MIOSHA website at www.michigan.gov/cet or at 517.322.1809. Safety and health standards for construction and general industry, and other information regarding employee safety and health can be viewed on the MIOSHA website at www.michigan.gov/mioshastandards.

www.michigan.gov/askmiosha

Variances

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

Dawn C. M. Jack, Director
Appeals Division
517.322.1297

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

John Peck, Director
Management & Technical Services Division
517.322.1851

Standards Update

Status of Michigan Standards Promulgation

General Industry Safety Standards Commission

■ GI Part 17, *Refuse Packer Units,* an advisory committee will be appointed to review language regarding gates on stationary barriers.

■ GI Part 33, *Personal Protective Equipment,* revisions regarding disposable gloves were approved. A public hearing will be scheduled. An advisory committee was appointed to address clarity, consistency, and to update consensus standards.

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

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

Construction Safety Standards Commission

■ CS Part 1, *General Rules*, revisions regarding sanitation were approved. A public hearing will be held.

■ CS Part 6, *Personal Protective Equipment,* an advisory committee was appointed to address clarity, consistency, and to update consensus standards.

■ CS Part 10, *Lifting and Digging Equipment,* public hearings were held on May 24 and 25 regarding Crane Operator Certification. A report to JCAR is being prepared. An advisory committee finished reviewing rigger and signal person qualifications and their recommendations will be presented to the commission. OSHA published their revised Cranes and Derricks in Construction standard on 08/09/10 with an effective date of 11/08/10. The commission will include related revisions in amendments to CS Part 10.

■ CS Part 12, *Scaffolds and Scaffold Platforms,* revisions regarding guardrails and stair towers were approved. A public hearing will be held.

■ CS Part 16, *Power Transmission and Distribution,* R 408.41645 Overhead Lines is being amended to make it "as effective as" federal OSHA Rule 1926.955(a). Subrules (7) through (10) need to be added.

■ CS Part 26, *Steel Erection,* R 408.42614 Structural Steel Assembly is being amended to make it "as effective as" federal OSHA Rule 1926.754. A note will be added regarding existing FHA regulations.

Occupational Health Standards Commission

■ OH Part 301, *Air Contaminants in General Industry,* and OH Part 601, *Air Contaminants in Construction*, the commission is reviewing diisocyanates and hexavalent chromium, and an advisory committee is reviewing exposure limits that should be updated.

■ OH Part 315, *Chromium (VI) in General Industry,* and OH Part 604, *Chromium (VI) in Construction,* these rules have been amended effective 09/18/10 to make them "as effective as" federal OSHA Standards 29 CFR §1910.1026 and 29 CFR §1926.1126. These standards require employers to notify workers of all hexavalent chromium exposure level monitoring results, not just overexposures.

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

■ OH Part 433, *Personal Protective Equipment,* and OH Part 554, *Bloodborne Infectious Diseases*, see GI Part 33 above.

■ OH Part 529, *Welding, Cutting, and Brazing,* these rules are being amended to make them "as effective as" federal OSHA Standards 29 CFR §1910.251 to 1910.255.

■ OH *Limiting Dry Cutting of Masonry Products,* the advisory committee is submitting recommendations to the commission for inclusion of a rule in OH Part 621 limiting silica exposure during dry cutting of masonry products.

Joint Standards

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

Daniel Dykstra – New Standards Manager

We are pleased to announce the appointment of Daniel Dykstra as the Departmental Manager for the MIOSHA Standards Section. Dan has over 24 years of state work experience, beginning in 1986 as a building construction specialist with the Fire Marshal Division in the Department of State Police.

He became assistant deputy director, and subsequently deputy director, for the Office of Fire Safety where his responsibilities included administrative rule promulgation for technical standards. Dan also represented the agency on the State Construction Code Commission. He then moved to administrative manager with the Bureau of Construction Codes, working on a number of code/rule promulgation assignments.

For the past three plus years, he has been working for the DELEG Executive Office on Strategic Workforce Planning, the Cool Cities Initiative, the MI 360 process, and the Michigan Business One Stop project.

Dan has a Master's degree in Public Administration from Western Michigan University and a Bachelor's degree in Engineering Technology/Management from Saginaw Valley State University.

New Course: Continuous Safety & Health Improvement

By Deb Gundry, CET Senior Safety Consultant

Level Two Management track course, ***"Continuous Safety & Health Improvement"*** (CSHI), was piloted for the second time in July 2010, after incorporating changes suggested from its initial pilot. The course has now been added to the regular schedule and will be presented four times over the next fiscal year (10/01/2010 - 09/30/2011).

CSHI moves beyond the initial development and implementation of a Safety & Health Management System to the ongoing responsibilities for evaluation, maintenance and participation in the system to affect continuous improvement. This course focuses on building and sustaining management commitment and employee involvement.

Group Activities

Group activities are designed to reinforce lecture segments by allowing students to apply what was discussed. In one group activity participants practice using a change model known as "Plan Do Study Act" (PDSA), which provides a systematic method to create change and study its impact.

Students were given an actual problem of how to enforce safety glass usage in the plant. By applying PDSA, students were able to understand firsthand how workplace change can be implemented in a systematic way as well as how to measure the effectiveness of the change.

Great Ideas

As part of the class, students were provided several opportunities to update their "great ideas" worksheet. This sheet was given to each participant at the beginning of the class where they were encouraged to write down ideas he or she envisioned as a best practice along with an action plan for change in their individual companies.

Students participate in a group activity during an MTI course.

The ideas came from class presentations, networking during small group exercises, and classroom discussions. Several comments from students keyed in on how the course provided many opportunities for them to learn from each other throughout the day.

Scholarship Program

During these difficult economic times, MIOSHA has dedicated **$50,000 for MTI scholarships,** which will cover half of the course costs for **any students.** Visit the MTI website to view the training calendar or apply for a scholarship.

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Michigan Occupational Safety and Health Administration

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

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Website: www.michigan.gov/deleg

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