Conversion Technology Inc.
Environmental & Safety Consulting Engineers

# ENVIRONMENTAL AND SAFETY UPDATE

**Summer 2013**

## BOILER MACT & GACT

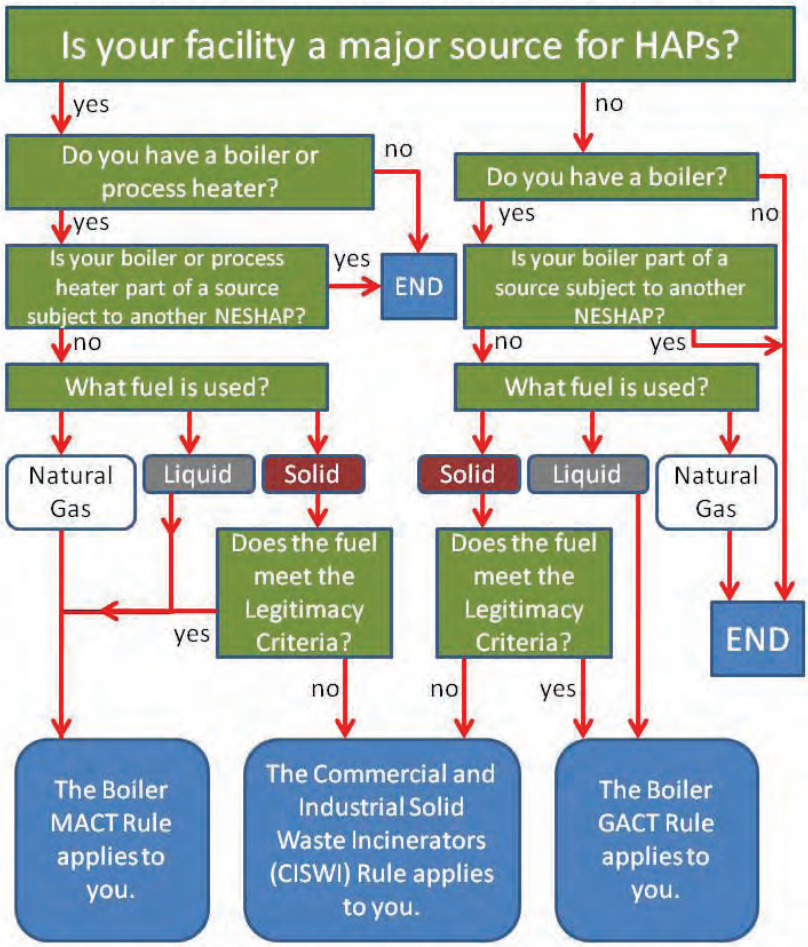
On January 31, 2013, the US Environmental Protection Agency (EPA) published what are known as the Boiler MACT (major source) and on February 1, 2013 the Boiler GACT (area source) rules were published.

**BOILER MACT:**
The Boiler MACT rule applies to new and existing boilers and process heaters at major source emitters of Hazardous Air Pollutants (HAPs). In the context of this rule, major sources are defined as having actual emissions of HAPs in excess of 10 tons per year of any single HAP or 25 tons per year of all HAPs combined. If your facility possess a Title V or Part 70 (Major Source) Air Quality Permit, this does not necessarily mean the Boiler MACT applies to you. A Title V Air Quality Permit signifies that actual emissions of at least one criteria pollutant (e.g. particulate matter, carbon monoxide, volatile organic compounds, etc.) exceed 100 tons per year for non-HAP pollutants, or the 10/25 ton per year HAP thresholds previously stated. If permitted emissions of HAPs are below the major source thresholds, Boiler MACT does not apply to you; however, Boiler GACT may.

**What is Required:**
You must submit Initial Notification Report and Notification Compliance Status to the State and to the US EPA by 5/31/2013.

Under the current Boiler MACT rule, all solid fuel and liquid fuel boilers and process heaters must meet emission limitations through performance tests and/or fuel analyses. There are a few exceptions, including limited-use boilers, boilers or process heaters associated with a source already subject to another rule, and boilers or process heaters used as emission control devices (e.g. thermal oxidizers). The emission limits in the rule are set quite low. It is conceivable that some older boilers in operation will require updated control technologies.

**APPLICABILITY CHART OF THE BOILER MACT RULES**




To read the summary of the rules, please go to **www.boilermactcompliance.com** and our blog: **www.conversiontechnology.com/blog**.



Additionally, all facilities must conduct regular "tune-ups" and perform a onetime boiler energy assessment of at least one boiler. The tune-up requirement is not a simple boiler tune-up as the rule establishes guidelines for the tune-up that are above and beyond what would normally be considered a "tune-up". For existing units, the performance tests, tune-ups, and the onetime comprehensive energy assessment are required to be completed by January 31, 2016.

**BOILER GACT:**
The boiler GACT rule applies to new and existing area source boilers. While MACT requires maximum achievable results, GACT represents generally achievable control technology and is not as stringent as MACT requirements. This rule applies to boilers with actual emissions of HAPs less than 10 tons per year of any single HAP or less than 25 tons per year of all HAPs combined.

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**What is Required:**
You must submit Initial Notification Report and Notificaiton of Compliance Status to the state and US EPA by January 20, 2014.

Under the current Boiler GACT rule, all new or reconstructed boilers and existing coal-fired and oil-fired boilers must meet emission limitations through performance tests and/or fuel analyses. The emission limits in the GACT rule are generally set lower than those in the MACT rule. Existing biomass boilers are not required to meet emission limitations.

Additionally, much like the MACT rule, all affected facilities must conduct boiler "tune-ups" and perform a onetime boiler energy assessment of at least one boiler. The tune-up definition is the same as that under Boiler MACT.

For existing units the tune-up and the one time comprehensive energy assessmement are required to be completed by March 21, 2014.

| GACT vs. MACT | | Initial Notification | Compliance Deadline |
|---|---|---|---|
| **Area Source (GACT)** | Facilities that are **not** a Major Source for Hazardous Air Pollutants (HAPs) | January 20, 2014 | March 21, 2014 |
| **Major Source (MACT)** | Facilities that are Major Source for HAPs | May 31, 2013 | January 31, 2016 |

**CTI Can Help:**
**Conversion Technology Inc. (CTI) offers to assist sources in complying with every aspect of the rules' requirements.**

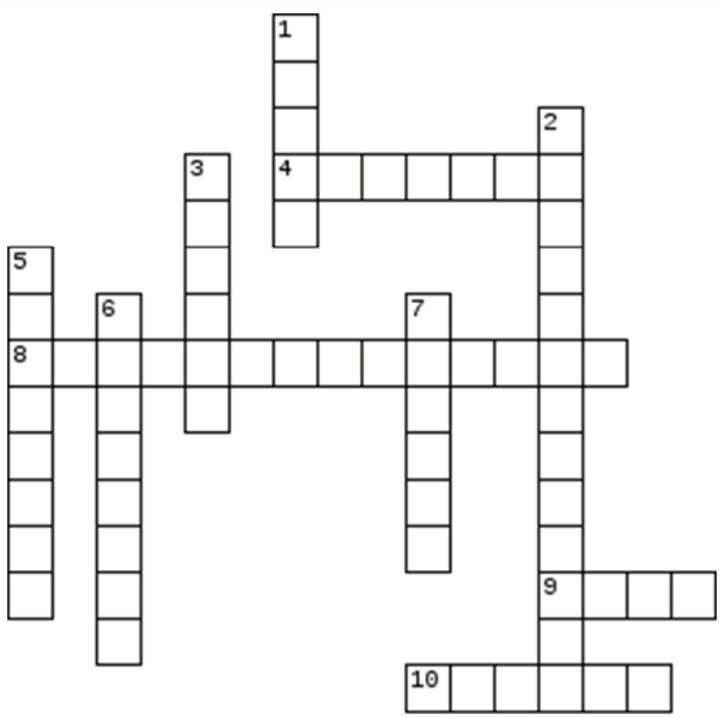
## GLOBALLY HARMONIZE SYSTEM (GHS) CROSSWORD PUZZLE

**Think you understand the new GHS standard?**
**Test your knowledge.**

**Across**
4. How many sections are there in the updated SDS sheets
8. Which section of the SDS would you find the chemical manufacturer's name
9. One pictogram may be used to represent several hazards within a class (True or False)
10. Carcinogenic properties represnt a _____ Hazard

**Down**
1. Acute health hazards occur gradually over time (True or False)
2. The 3 main types of hazards covered by the GHS are Physical, Health, & _____
3. _____ Data Sheet (SDS)
5. Which hazard does the following pictogram represent:

6. _____ 1st, 2013 is the deadline for employee training
7. Which of the 2 signal words represent the more serious hazard




1)false 2)environmental 3)safety 4)sixteen 5)oxidizer 6)december 7)danger 8)identification 9)true 10)health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## UNDERSTANDING AND PREVENTING FALL HAZARDS

Every year in June, we celebrate National Safety Month. In honor of National Safety Month I want to talk a little about a safety issue that is the cause of more than 300,000 injuries and 1,500 deaths each year, according to the National Safety Council; Slips, Trips, and Falls.

Most people consider slips, trips, and falls a non-issue. It is anything but. Slip, trip, and fall accidents are not only the leading cause of lost time from work, but they are one of OSHA's most cited topics.

Slips occur when there is not enough traction between a worker's footwear and the walking surface. Trip accidents result from a worker's foot colliding with an obstacle or object. Trips and falls can also occur when there are elevation changes in the walking surface. A height change of as little as ½ an inch can cause a person to trip.

One of the most effective ways to prevent slip, trip, and fall accidents from occurring in your facility is proper housekeeping. This includes the removal of debris and obstacles, and keeping the floors clean and swept. The biggest issue that I see when I conduct on-site safety audits is extension cords and air lines spread across the floor and around steps. Incidences like these are big deals. Good housekeeping is critical in the prevention of accidents. Safety and housekeeping stand side-by-side in the workplace. If a facility maintains an up-to-date housekeeping program and is noticeably clean and well organized, that is usually a clear indication that the facility also has a great overall safety program. Because of ideals such as this, OSHA inspectors often judge the safety of a facility from how they view the cleanliness of said facility.

An aspect of so many safety concerns stems from employee understanding and attention. All too often you will hear an employee say "I didn't make that mess, so why should I have to clean it up?" Rarely do people think about how taking a few seconds of their time to wipe up a spill, or move a cord out of the way, could prevent a co-worker from serious injury. It is imperative that all employees understand how to avoid, prevent, and assess the potential slip, trip, and fall hazards that could be present at their facilities. One way to get employees involved is through regular safety training and demonstrations.

Another part of slip, trip, and fall prevention is the prevention and protection from hazards associated with performing tasks in an elevated position. As I mentioned earlier, a fall of only a couple of inches can cause serious injury. That is why proper fall protection equipment and knowledge is a primary component of elevated task programs. Too many workers do not fully grasp and appreciate the capabilities and limitations of their fall protection equipment, nor do they religiously follow the proper use and maintenance procedures of their equipment. You can have the best harness and strongest anchor on the market, but you may not live to show it off for too long if you think it is okay to tie off to an unsafe anchorage point, or if you are not sure how to properly check your harness for tears and rips.

If you ask workers which direction is most important, their tendency would be to say that gravity is the enemy and the vertical aspects warrant the most attention. While that is a primary concern, it is just as important to consider hazards that may occur in the horizontal direction. It's like looking both ways before crossing the street; you want to know what is next to you just as you know what is below you.

When a worker falls, and is tied off, the motion of the fall usually produces a pendulum effect. This pendulum motion, may not pose any harm in the vertical direction, but it could cause that worker to swing back and forth, potentially hitting other workers, or running into equipment, or worse.

So many companies and workers do not consider many of the things I have talked about here. They become complacent in their procedures and are not always willing to spend the extra time and energy to change things for the better. Everyone should place the training of employees as a high priority. In conjunction with regular housekeeping, proper identification of anchorage points and equipment use, employee training should be conducted so that everyone knows the appropriate procedure in case an emergency does happen.

Preventing slip, trip, and fall related injuries and deaths do not have to be difficult. Regularly evaluating walking surface, diligent housekeeping, along with proper training on prevention, assessment, and equipment will all help everyone land safely on their feet.

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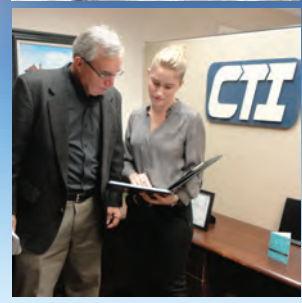


- ♦ AIR QUALITY
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- ♦ AUDITS & EVALUATIONS
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