Environmental management and employee safety

RECENTLY NOTICED some of the good habits that my two assistants have instilled in the crew in regards to Personal Protective Equipment, such as checking over the equipment safety guards, oil levels and grease fittings. It occurred to me that this magazine would be a great vehicle to share valuable information about how employee safety is tied into sustainable environmental management.

Most environmental issues typically fall under the Environmental Protection Agency umbrella; but there is another organization that we have all heard of, the Occupational Safety & Health Administration (OSHA). Do we take it for granted or worse yet, do we give any thought?

OSHA's Code of Federal Regulations can help guide us to a safe workplace. We all have to follow these federal regulations. Here are a few CFR regulations that pertain to sports turf managers; see http://www.osha. gov/ to be in 100% compliance.

HAZARDOUS COMMUNICATIONS TRAINING

It is the law to give all of your employees the Right To Know Training annually with their signatures for record keeping and have Right To Know Station visible with Material Safety Data Sheets (MSDS) on all products current and up to date yearly. Your Right to Know Station should be located in a central location within your shop area. Train your employees to know where to find any MSDS for any chemical on a moment's notice. Also explain labeling for potential health hazards from single word labeling:

- CAUTION means the pesticide product is slightly toxic if eaten, absorbed through the skin, inhaled, or it causes slight eye or skin irritation.
- WARNING indicates the pesticide product is moderately toxic if eaten, absorbed through the skin, inhaled, or it causes moderate eve or skin irritation.
- DANGER means that the pesticide product is highly toxic by at least one route

of exposure. It may be corrosive, causing irreversible damage to the skin or eyes. Alternatively, it may be highly toxic if eaten, absorbed through the skin, or inhaled. If this is the case, then the word "POISON" must also be included in red letters on the front panel of the product label.

You should train your employees to know how to react in case of a spill for health or the environment in a safe and productive way. Do you know what chemicals in your shop are labeled "Danger"? You might be surprised to find out that for most of us it is windshield washing fluid. For more information on MSDS training please go to http://www.osha.gov/html/ faq-hazcom.html.

BLOOD BORNE PATHOGENS & HAZARDOUS SPILL TRAINING

Some preventable measures as indicated by OSHA include:

- Routine use of latex gloves or other precautions to prevent skin and mucous-membrane exposure when contact with blood or other body fluids is anticipated.
- If bleeding is profuse and requires the assistance of a supervising adult, latex gloves should be donned and pressure applied to the wound, keeping the injury above the level of the heart if possible. Medical care should be sought.
- Immediately wash hands and other skin surfaces if contaminated (in contact) with blood or other body fluids. Wash hands immediately after removing gloves.
- The bloodied portion of the athlete's uniform must be properly disinfected, or the uniform changed before the athlete may participate.
- Clean all blood-contaminated surfaces and equipment with a solution made from 1-100 dilution of household bleach or other disinfectant before competition resumes. Use a new mixture for each event, and discard the mixture after each event.
- Practice proper disposal procedures to prevent injuries caused by needles and other

sharp instruments or devices found in the area of the field.

- Although saliva has not been implicated in HIV transmission, mouthpieces, resuscitation bags, or other ventilation devices should be available for use to minimize the need for emergency direct mouth-to-mouth resuscitation.
- Athletic trainers/coaches with bleeding or oozing skin conditions should refrain from all direct care until the condition resolves.
- Contaminated towels, dressings, and other articles containing body fluids should be properly disposed of or disinfected.

A spill of fuel, oil, pesticides or chemicals more than a gallon is classified as a hazardous spill. To avoid harm to health and environment you should train and document preventable measures for all kinds of spills. Also plan and prepare for the worst and hope it never happens. Maps indicating emergency exit routes for each building should be posted by the elevator and exits on each floor to aid you in locating emergency

TOP 11 national EPA VIOLATIONS

- 1. Waste label not properly filled out (on both sides, need complete information).
- 2. Weekly inspection of the satellite accumulation or main/central accumulation area NOT being performed.
- 3. Full container remaining in a satellite accumulation area for more than 3 days.
- 4. More than one container per waste stream (type of waste).
- 5. No impervious base (secondary container requirement). All waste containers must be stored in a compatible secondary container in order to contain spills.
- 6. Required annual training NOT documented (Hazardous waste and spill response training).
- 7. Open waste container.
- 8. Satellite accumulation area not under control of the staff generating the waste.
- Spillage or leakage of waste (including contamination on the container)
- 10. Failure to determine waste as hazardous. (e.g., it is clearly waste like but there is no waste label.)
- 11. Satellite accumulation area NOT at or near the site of generation. (e.g., Not across or down the hall, or if it is, use secondary containers to transport.)

equipment, and in leaving the building during emergency evacuations. Also:

- Notify your Emergency Coordinator and your neighbors for back up.
- Notify the Environmental Health and Safety Office (EHSO).
- Review MSDS and request additional advice from EHSO.
- Locate the spill kit and other needed material.
- Choose appropriate personal protection according to information given in MSDS.
- Wear chemical resistant gloves, safety glasses and/or a face shield.
 - Wear a coverall and/or apron.
- Use appropriate respiratory protection if permitted to do so.
 - Work in pairs, never work alone.

GENERAL SPILL CLEANUP PROCEDURES

• Apply the absorbing or neutralizing material to the spill according to the hazardous characteristics of the spilled substance.

- Work inward from the spill perimeter until the spilled material is covered.
- Scrape and sweep contaminated absorbing material into a dust pan, place in a sealed container.
- Wet mop contaminated area if spilled material is not water sensitive.
- Collect the spill clean up material in a leak proof container.
- Label container with a hazardous waste label as to its content (i.e. spill cleanup material & spilled compound name)
- Arrange with EHSO for pick up and appropriate disposal.

Have a spill response action plan for these types of emergency and protocol for employees to act in a safe and responsive way. Have spill kits readily available at gas and diesel pumps, pesticide storage lockers and within your shop maintenance area.

SAFETY

It is the responsibility of the sports turf manager and employer to provide safe working conditions for their employees. There are many parts to this CFR; however I have tried to simplify:

It shall be the responsibility of the employer to initiate and maintain such programs as may be necessary to comply with this part. Such programs shall provide for frequent and regular inspections of the job sites, materials, and equipment to be made by competent persons designated by the employers. The use of any machinery, tool, material, or equipment which is not in compliance with any applicable requirement of this part is prohibited. Such machine, tool, material, or equipment shall either be identified as unsafe by tagging or locking the controls to

render them inoperable or shall be physically removed from its place of operation, i.e. guards missing from mowers, weed eaters, edger's, grinders, etc. Any unsafe piece of machinery or parts missing shall be tagged and marked out of order. The employer shall permit only those employees qualified by training or experience to operate equipment



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and machinery. This responsibility falls under the sports turf manager.

Personal protective equipment. Standards in this part require the employer to provide personal protective equipment (PPE), including respirators and other types of PPE, because of hazards to employees impose a separate compliance duty with respect to each employee covered by the requirement. The employer must provide PPE to each employee required to use the PPE, and each failure to provide PPE to an employee may be considered a separate violation. Training. Standards in this part require training on hazardous and related matters, such as standards requiring that employees receive training or that the employer train employees, provide training to employees, or institute or implement a training program, impose a separate compliance duty with respect to each employee covered by the requirement. The employer must train each affected employee in the manner required by the standard, and each failure to train an employee may be considered a separate violation.

The weather is forever changing; you can blame it on global warming or natural phenomena, but if one of your employees gets fatally sick from heat exhaustion or heat stroke, you might be investigated from OSHA and held accountable. Have precautions in place such as: more allowable breaks to cool down, and available water to prevent dehydration. Do your heavy workloads in the morning when it's a little cooler and more relaxed workloads in the afternoon when the sun is beating down with hot temperatures.

FLAMMABLE STORAGE & FIRE PROTECTION

Flammable liquid: Any liquid having a flash point below 100°F, except any mixture having components with flashpoints of 100°F or higher, the total of which make up 99 percent or more of the total volume of the mixture. Flammable liquids shall be known as class I liquids. Class I liquids are divided into three classes as follows: Class IA shall include liquids having flash points below 73°F and having a boiling point below 100°F; Class IB shall include liquids having flash points below 73°F and having a boiling point at or above 100°F; and Class IC shall include liquids having flash points at or above 73°F and below 100°F.

The turf manager needs to have a fire protection plan for all his areas of responsibility. The employer shall provide portable fire extinguishers and shall mount, locate and identify them so that they are readily accessible to employees without subjecting the employees to possible injury. Only approved portable fire extinguishers shall be used to meet the requirements of this section.

The employer shall assure that portable fire extinguishers are maintained in a fully charged and operable condition and kept in their designated places at all times except during use. The employer shall distribute portable fire extinguishers for use by employees on Class A fires so that the travel distance for employees to any extinguisher is 75 feet or less. The employer shall be responsible for the inspection, maintenance and testing of all portable fire extinguishers in the workplace.

At least two exit routes must be available in a workplace to permit prompt evacuation of employees and other building occupants during an emergency. The exit routes must be located as far away as practical from each other so that if one exit route is blocked by fire or smoke, employees can evacuate using the second exit route.

INJURY REPORTS

The purpose of this rule is to not only protect the worker, but to protect your company as well. Worker compensation frauds cost companies and insurance groups a lot of money, having documented records on file can aid in any investigation for fraud claims or law suits. If your company had 10 or fewer employees at all times during the last calendar year, you do not need to keep OSHA injury and illness records unless OSHA informs you in writing that you must keep records. However all employers covered by the OSH Act must report to OSHA any workplace incident that results in a fatality or the hospitalization of three or more employees. If your company had more than 10 employees at any time during the last calendar year, you must keep OSHA injury and illness records unless your establishment is classified as a partially exempt industry.

REASONS FOR OSHA INSPECTIONS

This information courtesy of James B. Meehan, PE, CSP, Iowa State: Don't wait for an incident to occur to take action on a CFR to be in compliance, this will not help you, the damage is already done. Have someone from your crew to volunteer as a safety officer and help aid you in finding deficiencies and correcting them. Remember to document everything and file it accordingly, this can only help you in an event that some unfortunate incident happens, you are well covered with documentation training, PPE employee issues, etc. There are several ways you might find yourself getting inspected, however, the most common are:

Imminent danger: Allegations of an imminent danger situation will receive highest priority. The inspection will be conducted within 24 hours of notice of the imminent danger to OSHA unless extraordinary circumstances exist.

Fatality and catastrophe: Accidents will be investigated if they include any of the following conditions:

One or more fatalities;

Three or more employees hospitalized for more than 24 hours;

Significant publicity.

Program inspections based upon Federal OSHA priorities.

Employee or ex-employee complaint: Complaints are investigated by inspection or by letter. If OSHA formalizes the complaint by a letter, your letter reply to the complaint is a serious report, not to be taken lightly. Complaints to OSHA that are signed by an employee will always result in an inspection. The inspection, however, may be limited to the items in the complaint.

Programmed inspection: OSHA policy requires that programmed inspections will be conducted in industries where OSHA expects to achieve a significant impact or has targeted specific hazards.

Follow-up inspection: OSHA can re-inspect to assure that an employer has abated the violations that have been cited. Fines are usually approximately ten times higher for "Failure to Abate" citations.

TIPS TO HELP YOU GET IN COMPLIANCE

From the point of view of the OSHA inspector:

Don't make me wait. It just tells me you're not ready. Nothing you can do at the last minute is going to make much dif-

TOP 10 national OSHA VIOLATIONS

- 1. Scaffolding
- 2. Fall Protection
- 3. Hazard Communication
- 4. Respiratory Protection
- 5. Lockout/Tag out
- 6. Electrical, Wiring Methods
- 7. Powered Industrial Trucks
- 8. Ladders
- 9. Electrical, General Requirements
- 10. Machine Guarding

ference anyway.

It's best to be open with me.

Don't try to block my line of site by bringing a bunch of employees along on the walkthrough. I'll wait until I get to see what I want to see. Some of us use digital cameras. Some of us even videotape the inspection.

Be prepared to answer questions. Have all required OSHA documents, including those outlining safety plans, ready for me.

Don't discourage employees from talking to me. I'll talk to them one way or another. I find ways to slip employees my business card, and once I do, they usually call. If necessary, I'll get a subpoena to talk to your employees.

Don't lie to me. That makes me angry.

Think about hazards, not just standards, when you evaluate your workplace for safety. I look for hazards, not standard violations.

Have your training documents in order. I do look at them. If you have Hispanic employees, make sure you have documentation that they understood your safety training.

Plan ahead and designate a person or people who will meet with me. Make sure the person is prepared. It doesn't matter to me whether you have a full-time safety manager or not. That doesn't make me any tougher or easier on a company.

Check out OSHA's Field Operations Manual for inspectors. Even though it's written for inspectors, it's available to anyone for free on the OSHA website (you can download a PDF. It's a great resource to prepare any company for the possibility of an OSHA inspection.

BACK TO THE EPA

In 1976 Congress passed the Resource Conservation and Recovery Act (RCRA). This regulates hazardous and non-hazardous waste from our facilities. We all store oil, gasoline, pesticides, antifreeze and other chemicals. We all change our equipment and vehicle oil, antifreeze, gasoline and change out our florescent light bulbs from our shops, interior and exterior of buildings and parking lots. But how do we store them when they become waste?

Hazardous storage items could be motor oil, solvents, gas, antifreeze, paint, batteries and other chemicals. All containers must be secure and placed on or have secondary condiment in case of spills or leaks. Hazardous waste storage items like used motor oil, used antifreeze, used gasoline and other used or contaminated chemicals along with burned out florescent light bulbs must be labeled with substance and have placards to identify their dangers. Also every state might have different regulations and protocol for hazardous storage and hazardous waste storage. Please go to http://www.epa.gov/osw/ wyl/stateprograms.htm for your state's regulations and laws to be in compliance.

Finally, there is not enough room in this article to list every CFR that pertains to our sports turf industry however, we cover the es-

sentials. Always cover yourself with documentation. A lot of us might already be in compliance with OSHA and the EPA; however we all need to showcase our environmental and safety efforts and procedures within our organizations.

I would like to challenge my cohorts to showcase their environmental and safety practices in future articles. There are tough laws and regulations coming down the road simply because of the finger pointing game that has been played over nutrient management or worse yet the green washing epidemic that has taunted our turfgrass industry to cover it up.

I commend all you sports turf managers that belongs to or are certified through an environmental organization, but remember we have to lead the way, not the organization. We have to implement change not tomorrow's sports turf manager. Let's hear what everyone else is doing and let's learn from each other. Let's all lead by example for a sustainable tomorrow.

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