Safety & Regulatory Practices Checklist

This document describes key safety and regulatory practices for pesticide handling, storage, mixing, and disposal. These practices should be part of all lawn care company safety and regulatory programs.

This material has been prepared to assist professionals who own or operate a lawn care company and/or ornamental care company by providing summarized information about elements of good business practices that are likely to be applicable to their operations. By its nature, it cannot be a complete survey of regulations effecting such businesses, since regulations may change at any time. As this section is being written, new or revised regulations are under consideration in such areas as worker protection, groundwater protection, endangered species, applicator training, requirements for storage facilities, and container disposal. Also, states and even local cities and towns may have additional or more stringent regulations not covered here. The users of this material should satisfy themselves that the information is current and relevant to their particular information needs.

An overview is provided first, showing the basic elements of a program for safe and legal handling of hazardous chemicals by small businesses and professionals, with additional information about proper handling of pesticides. This is followed by sections with key pointers for important elements of such a program.

Be thorough and complete in your safety and compliance program. Review all chemical products used or stored on your premises to determine which are hazardous, including fuels, some fertilizers, shop chemicals, and the like, as well as pesticides. Include all hazardous chemicals in your planning, employee training, and safety precautions.

OVERVIEW

Know what you have in inventory.

- ☐ The hazards of each product.
- ☐ The storage requirements.
- ☐ What precautions and protection equipment to use with each product.
- ☐ What to do in case of an accident or spill involving each product.

Take precautions to avoid problems, accidents, and emergencies.

- ☐ Train employees in the safe handling of hazardous chemicals.
- ☐ Obtain applicator training for employees who need it.
- ☐ Require use of proper protective clothing and equipment.
- ☐ Keep untrained people away from hazardous materials.
- ☐ Store products properly.
- ☐ Comply with any containment requirements.

Know and observe any restrictions on what you can do and how you can do it.

- Be sure all products you use are registered in the state where you use them, and know any state and/or local restrictions on them.
- Know which products are “Restricted Use” products.
- Know whether DOT regulations affect your transport of products.

Plan ahead for what to do in case of an emergency.

- Post emergency phone numbers where you can find them quickly, in the facility and in all vehicles.
- Know what to do in case of a spill or fire, and be sure your employees do also.
- Make sure your local fire department knows what you store and its hazards.
- Maintain good community relations.
- Comply with community right-to-know regulations.

Be sure you and your employees are prepared to answer questions and demonstrate a responsible level of knowledge to the public. Use PLCAA’s Q&A brochure, “What You Should Know About Lawn Care Products and Services,” and PLCAA’s Advertising Guidelines for answers that won’t violate FTC advertising practices.

- Maintain good records.
- File reports if and when they are required.
- Dispose of waste properly.

WORKING WITH HAZARDOUS PESTICIDES

Regulations are under consideration as this is being written and are likely to require state management plans for some pesticides to protect groundwater from contamination, and involve county-specific restrictions of some products to protect endangered species. Be sure to obtain full information about any restrictions applicable to your locality, including posting and notification regulations. Also note that products may not be registered for use in all states.

- Read the label and MSDS before working with any product. Observe all safety precautions and restrictions and use all personal protective clothing and safety gear specified. Follow label directions for use.
- Be sure that sprayers are calibrated correctly, in accordance with operating instructions. Recalibrate regularly.
- Try to leave a buffer zone around wells, ponds, streams, and other water sources when making applications to prevent water contamination.
- Always have clean water available in work areas for washing, including areas where spraying is being done.
- Store pesticides only in their original containers. When working with hazardous chemicals **of any kind**, be sure all containers are always labeled per federal and state regulations to identify their contents and any hazards.

PROTECTIVE CLOTHING AND EQUIPMENT

- Consult MSDS sheets and labels to determine what protective clothing and equipment is necessary to use products correctly, and be sure to have on hand all types of clothing and equipment required for all products that may be used.
- Always wear eye protection if there is any possibility of a spill, splash, or spray of material into the eyes; for example, when transferring or handling chemicals.
- When using a product, always use all protective clothing and equipment specified by the product label and MSDS. Require all employees to do so.
- Wear clothing that reduces exposure, even for products with a relatively low level of toxicity that do not specify special protective gear; for example, pesticides with the single work “Caution.” Long sleeves, long pants, chemical resistant gloves and boots, socks, and a hat are all desirable. Do not use leather or cloth gloves, which absorb chemicals. Rubber covering of shoes is desirable. Leather is very hard to decontaminate.
- If a cartridge respirator is required per label directions, do not use only a dust mask. And be fore to use the right kind of cartridge respirator; not all are designated for use with pesticides. Be sure respirators fit properly.
- Use protective safety gear the entire time you are working with a product. Do not remove gloves to clear a blocked nozzle or repair equipment, for example.
- Do not eat, drink, or smoke while working with hazardous chemicals, or while your hands may still have residues on them. Avoid touching unprotected parts of your body with work gloves or contaminated hands.
- When using gloves with a hazardous chemical, rinse the gloves before removing them. Then wash your hands with soap and water before eating, drinking, smoking, or resuming other activities.
- Always carry clean water with you to wash your hands in the field.
- Wash safety equipment, such as goggles and aprons, with soap and water immediately after each use.
- Wash work clothes that are used with hazardous chemicals daily. Do not wash them with other items, such as in a family wash. Pre-rinse with detergent in water, drain, then wash with a regular wash cycle. Clean the machine after your work clothes have been cleaned by running it through a wash cycle with no load.
- Line dry the clothes to avoid contaminating the dryer.
- If a liquid concentrate of a hazardous chemical is spilled on clothing (except rubber of chemical resistant material), discard the clothing as hazardous waste. Use gloves to handle it.

PRODUCT STORAGE

Federal and state regulations for storage, mixing, and loading of hazardous chemicals were generally not final when this guide was written. Check with PLCAA or your state extension service for current information about any specific requirements, and about what sizes of operations are affected by the regulations. Do not purchase, and thus do not store, more product than necessary.

- Store hazardous chemicals in a locked building, with protection on any windows, and whatever additional security is appropriate to your area. Do not allow unauthorized personnel into the building. Keep storage areas locked at all times when they are not attended.

- Store all hazardous chemicals away from wells, ponds, streams, other water sources, and sinkholes. A setback of 200 feet may be required. Seal any abandoned wells on your property.
- Either store chemicals where any drainage is not toward water resources or create a dike to prevent such drainage and reduce the danger of contamination from spills and from the runoff of water used to fight any fire. Seal any floor drains.
- Install impervious floors designed for spill clean-ups.
- Check product label instructions for information on storage and follow any instructions they contain.
- Store flammable and combustible materials in a separate area that is well ventilated and away from any ignition welding sparks.
- Store dry, bagged products off the floor and above or away from liquid products to keep them dry.
- Stack materials only in a stable manner, and abide by any stacking height limitations recommended by suppliers.
- Provide adequate lighting, keep aisles clear, and ensure that exits are well marked and unobstructed.
- Ensure that there is no smoking except in specifically designated areas.
- Keep any lunch room separate from chemical storage areas.
- Provide adequate washing facilities.
- Inspect all purchases. Do not accept any leaking or damaged containers.
- Be sure all containers are properly labeled.
- Dike and contain bulk storage tanks sufficiently to completely contain the entire contents of the tank plus at least 10%, in case the tank fails.
- Storage tanks may require registration at the state or federal level.

MIXING AND LOADING

- A mixing, loading, and wash pad is desirable, and may be required in your state. The pad should be large enough to catch any splashes and spills from mixing, loading, and washing activities. It should be made of concrete, with a waterproof seal between its bottom and sides. It should slope to a sump so that liquids, such as rinse water, can be pumped to an aboveground holding tank for easy collection. Consider roofing it so that rainwater does not have to be removed with same system.
- If a loading pad is not required and not available, do not load chemicals near any well, stream, pond, or other water source. Try not to do all loading in the same place, to avoid buildups of contamination from splashes and spills.
- Never leave a filling operation unattended.
- Keep water supply hoses above tanks being filled, and out of the liquid. Use devices to prevent back siphoning.

TRANSPORTING PRODUCTS

- If you transport hazardous chemicals, for example to the site where they are to be applied, determine whether the transporting is subject to DOT regulations for shipping papers and marking or placarding.

- The 1993 PLCAA DOT Monograph was developed as a summary intended to indicate which products, in which package sizes, are subject to regulation during transportation. You may also contact the manufacturer of the product to determine if it is subject to regulation. Also determine whether your state department of transportation requires a commercial driver's license for the amounts involved and/or for the kind of vehicle used. If a commercial driver's license is required, records must be kept on the holder of the license.
- Secure containers of chemicals during transportation.
- Be sure all drivers know how to handle any spill or emergency, or know how to contact a knowledgeable person immediately in case of an accident or spill.

PESTICIDE CONTAINERS

- Empty them completely. Triple rinse. Drain liquid containers for at least 30 seconds after the flow is reduced to drops.
- Rinse them immediately, before residues can dry. Leave no residues. Containers with pesticide residues may be considered hazardous waste. Pressure rinse, using the special nozzle, or triple rinse. To triple rinse, three times fill the container 1/4 full and shake thoroughly, then drain completely. Use at least five gallons for each rinse of drums.
- Puncture plastic containers after rinsing.
- Check the product label for any special container disposal information.
- Determine whether your state or region has a recycling program for plastic pesticide containers. Metal drums can be reconditioned.
- If recycling is not possible, determine what disposal method is permitted by your state or locality.
- Do not reuse pesticide containers for other purposes.
- Check into the use of min-bulk or other returnable containers.

RINSING AND RINSEATE

- See the Pesticide Containers section above for instructions on how to rinse.
- If possible, use the rinseate from a pesticide container in the sprayer with the rest of the product, or otherwise apply in accordance with label instructions.
- If possible, rinse the sprayer on location after use, so the rinseate can be applied with the rest of the product. Otherwise, rinse so the rinseate can be collected, for example on a wash pad, and use the rinseate in your next sprayer load of the same product.
- Stored rinseate can be considered a hazardous waste. Do not store it if you can apply it in accordance with label instructions.

SPILLS

- Prepare for the possibility of a spill with written plans, and training with all employees.
- Have emergency response materials on hand to contain, absorb, and dispose of spilled materials, with any personal protection equipment necessary.
- Familiarize employees with proper procedures.
- Know which products present special hazards when spilled and be sure anyone using them is prepared to deal with those hazards if necessary.

- Have emergency telephone numbers on hand so you can contact the local emergency response team, poison control center, hospital, and/or product manufacturer quickly.
- If you have a spill:

A. Limit its extent. Put upright any dropped container, put a broken container into a recovery drum, turn off an open valve.
B. Contain its spread with an earth dam or other barrier. Divert it from any well, stream, or pond.
C. Clean it up as quickly as possible. Contact the manufacturer of the product for advice. Use absorbent materials for liquids, especially when spilled on hard surfaces.
D. Determine whether the location and/or amount of the spill requires reporting, and report the spill if necessary.
E. Dispose of contaminated materials properly. See the Hazardous Waste section below.

FIRE PRECAUTIONS

- Work with your local emergency planning committee and fire department to plan the proper response to any emergency on your premises.
- Give them all names and telephone numbers of key employees, and any other information necessary for them to reach someone suitable at any hour.
- Provide them with a list of the hazardous chemicals on your site, especially if the chemicals are present in quantities requiring SARA Title III inventory reporting. Be sure they have access to MSDS's and labels for the chemicals. Remember than any MSDS's in your storage building will not be accessible if the building is on fire.
- Also provide a map of your site and its buildings, showing the location of hazardous chemicals, fire hydrants, utility shut-offs, and any other information they may need.
- Be able to prevent runoff of contaminated firewater from entering wells, streams, ponds, sinkholes, drains, or sewers.
- Post fire hazard codes/placards if they are required in your area.
- Have the proper kinds of fire extinguishers for the chemicals you have on your premises. Keep these marked and accessible where they are needed. Be sure all employees know how to use them. Have them inspected annually.
- Store products properly. See Product Storage.
- Sweep floors and empty trash containers regularly. Do not store trash near buildings.

- Forbid and prevent smoking in storage areas for chemicals, and while using chemicals.
- Be careful of sparks when welding and cutting. Keep these activities away from flammable materials and in a safe, designated area.
- Clean up any spills promptly.

RECORDS AND REPORTS

Records should be maintained whether required or not. Good records are useful for other purposes, such as evaluating product effectiveness under local conditions. They will also help during audits by regulators.

- Commercial applicators must keep records of all use of Restricted Use pesticides for two years, and provide records to the regulatory agencies on request. Records of all pesticide applications are desirable, and may be required by some states. Be sure they include all information required by your state.
- Employers must keep records of all hazardous chemicals in the workplace for OSHA Haz Com purposes, and must have a written hazard communication program. Keep records of the training of each employee.
- If inventory levels of hazardous and/or extremely hazardous substances exceed threshold levels, SARA Title III requires inventory reporting. Check also with your state to see whether it has any lower thresholds.
- Promptly report any spill that meets the criteria for reporting.
- Maintain current MSDS's for all hazardous chemicals to which you or your employees may be exposed, and keep your hazard communication manual in a location readily accessible to employees.
- Maintain written records of your response plans for spills and other emergencies.

HAZARDOUS WASTE

- Keep hazardous and non-hazardous waste separate. Hazardous waste includes:

A. Unused hazardous chemicals
B. Residues and rinseate of hazardous chemicals
C. Containers from hazardous chemicals that aren't empty and fully rinsed
D. Contaminated soil and other materials from any spill clean-up

- Clothing and rags contaminated with materials that are hazardous waste.
- Generate as little hazardous waste as possible. Do not order more of a product than you will use in a season. If possible, dispose of rinseate and other water and soil that is contaminated with a pesticide by applying it to a field or other area in a manner consistent with the product label instructions.
- Contact your state solid and hazardous waste agency, pesticide control board, or extension service to determine what disposal methods you may use for any hazardous waste you generate. Be prepared to estimate the maximum amount of hazardous waste and of acutely hazardous waste that you generate in any one month. These amounts may affect whether you must use special disposal methods for your hazardous waste.
- Shipping of hazardous waste is regulated by the Department of Transportation. If you must ship hazardous waste, be sure your transporter has the necessary permits and insurance, and uses proper shipping manifests.

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