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Chapter 9.3 Pesticide Control

This could be you . . .

An employee who worked in an area that had been treated with pesticides contacted the pesticides. This caused his skin to itch, blister, crack, and change color.

After spraying pesticides, a worker did not wash thoroughly before eating and suffered mouth, throat, and stomach burns as a result.

A worker dropped a pesticide container that ruptured and splashed pesticide into the worker's eyes.

9.3.1 Applicability of this chapter

9.3.1.1 You are required to follow this chapter if you:

- a. Store, handle, mix, apply, or dispose of pesticides as part of your job.
- b. Work in an area that has been treated with pesticides.

9.3.2 What this chapter covers

This chapter covers the minimum requirements for storing, handling, mixing, applying, and disposing of pesticides. "Pesticides" in this chapter only includes insecticides, herbicides, fungicides and rodenticides. You'll find emergency information in paragraphs 9.3.12 and 9.3.13.

9.3.3 Definition of a pesticide

A pesticide is any substance or mixture of substances that prevents, destroys, repels, or mitigates any pests. Pests include insects, mice and other animals, unwanted plants, and fungi. These include chemical pesticides and biopesticides. See <http://www.epa.gov/pesticides/about/types.htm> for a complete list.

9.3.4 Required information for any pesticide you are working with

9.3.4.1 You shall have either information from the original container label or MSDS/SDS with you while working with any pesticide. They tell you:

- a. Contents by generic and trade names.
- b. Directions for use:
 - (1) Plant material, animal, or site to which the product is to be applied
 - (2) Specific pests to be controlled by the product
 - (3) The situation, location, and conditions under which you may use the product
 - (4) Rate and equipment requirements
 - (5) How to apply the product

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- (6) When to apply the product
- c. Statement of classification.
- d. Hazards to humans, animals, or the environment.
- e. Statement of practical treatment.
- f. Signal word and precautionary statements:
 - (1) Danger – highly toxic product
 - (2) Warning – moderately toxic product
 - (3) Caution – low-order toxicity product

9.3.5 Precautions to observe when storing and handling pesticides

9.3.5.1 If you store or handle any pesticides, you shall observe these precautions:

- a. Store pesticides in original containers with legible labels. The label will tell you how to store the product, when practical.
- b. Make sure the storage area is secured at all times.
- c. Make sure the storage area is well ventilated with an exhaust fan. Turn the exhaust fan on at least 10 minutes before entering and keep it on at all times when personnel are inside the storage area.
- d. When removing pesticides from a chemical storage facility or storage area, note the exact amount used on a chemical checkout sheet.
- e. If you are a spray operator, you are responsible for safely transporting pesticides.
- f. Make sure all pesticide containers are secured so they don't break and spill.
- g. Don't leave pesticides unattended or unlocked.
- h. Keep all paper and cardboard containers dry.
- i. Fill out and approve the chemical use sheet before using pesticides.

9.3.6 Precautions to observe when mixing pesticides

9.3.6.1 If you mix any pesticides, you shall observe these precautions:

- a. Don't mix pesticides inside chemical storage areas. Always mix pesticides outside in open air.
- b. Always have another person present when mixing pesticides.
- c. Read directions before opening a container or mixing pesticides.
- d. Don't put a water nozzle directly into a pesticide solution. Keep a minimum of 18 inches between water nozzle and solution to prevent back siphoning.
- e. Minimize splashing.
- f. Make a slurry of pesticide powders and water before adding it to a spray tank.
- g. Be aware of fire hazards.

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h. Wear required safety equipment.

9.3.7 Precautions to observe when applying pesticides

9.3.7.1 If you apply any pesticides, you shall observe these precautions:

- a. Notify the facility manager 24 hours in advance of any pesticide application.
- b. Strictly follow the label or manufacturer’s directions when applying pesticides.
- c. Post a warning at least 24 hours in advance for special applications, such as pesticide “fogging” around potentially occupied areas.
- d. Keep pesticides away from people. Don’t spray if others are close.
- e. Shower at the end of the day with soap.
- f. Have a physical every 6 months to determine physical health and chemical toxin levels in the body.
- g. Don’t smoke, eat, or drink during pesticide application. Clean your hands before you do smoke, eat, or drink.
- h. Have MSDSs/SDSs for the pesticides you are using readily accessible.

9.3.8 Disposing of pesticides

9.3.8.1 When you dispose of any pesticides, you shall:

- a. Rinse empty containers at least three times and pour the rinse water into a spray tank.
- b. Punch several holes in empty containers and place them in a dumpster.
- c. Put liquid chemical waste in metal containers and notify the Operations Control Center at x32038 for pickup.

9.3.9 Precautions to observe when using pesticide equipment

9.3.9.1 When working with pesticide equipment, you shall observe these precautions:

- a. Make sure equipment is in good working condition before adding pesticides.
- b. If you have a mechanical problem, thoroughly clean equipment before taking it to the mechanic.
- c. Clean equipment as soon as you finish using it (inside and out).
- d. Properly dispose of cleaning waste.

9.3.10 Protective clothing and equipment to use when working with pesticides

9.3.10.1 If you work with any pesticides, you shall wear the following personal protective equipment:

- a. Disposable sprayer suit: Never wear a sprayer’s suit longer than 4 hours.
- b. Goggles: Wear snugly but comfortably.

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- c. Rubber boots: Wear them under your pant leg so pesticides won't run into the boots.
- d. Rubber gloves: Wear them outside your sleeve if spraying upwards and inside your sleeve if spraying toward ground.
- e. Respirators (as required): You shall be assigned your own respirator and never share it. Replace the filter after 8 hours of actual use. Replace the filter each day or more often if breathing becomes difficult for you or if you smell pesticide odors.

NOTE: See Chapter 5.6, "Personal Protective Equipment," for information on getting, using, and cleaning your PPE.

9.3.11 Training to work with pesticides

9.3.11.1 If you work with any pesticides, your training shall include the following:

- a. Certification under federal and state laws and regulations. See Chapter 5.8, "Hazardous Operations: Safe Practices and Certification," of this Handbook for more information on certification.
- b. First-aid training for at least one person on each shift. The training shall include the symptoms of overexposure to pesticides.
- c. Proper use and maintenance of respirators. This includes a complete medical exam and respirator fit test as described in Chapter 7.2, "Respiratory Protection," of this Handbook.

9.3.12 Emergency actions for pesticide spills

9.3.12.1 If a spill occurs in the field, you shall follow these steps in this order:

- a. Give first aid if necessary. First-aid kits and eyewash bottles shall be within easy reach on all vehicles.
- b. Stop the flow from the sprayer. You shall understand the flow of pesticides through the spray equipment and how to stop the flow with the least damage.
- c. Contain the spill if pesticide could flow into storm sewers. This may not be a problem if you are using a dry material or if a leak occurs over grass. Dike the spill with sod or soil. Absorb the pesticide with soil, sawdust, or a special product for absorbing pesticides.
- d. Notify the Project Manager or Technical Foreman to get help if necessary, and have someone follow up on the spill. If immediate response is necessary, call your emergency number.
- e. Rope off the area to warn people of the spill and prevent further contamination.
- f. Don't leave the spill unless there is someone there to warn people of the hazard.
- g. Clean up the site. This is the most critical step. To clean up you shall:
 - (1) Dispose of absorbents properly and remove and dispose of contaminated soil.
 - (2) Shovel all contaminated material into a leak-proof container and dispose of the material as excess pesticides.
 - (3) Observe plants that have been accidentally doused to assess the damage.

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h. Find the reason for the spill and take any necessary steps to prevent another spill.

9.3.13 Actions for an overexposure to pesticides

Remember, your emergency numbers are: x33333 or (281) 483-3333 at JSC, Sonny Carter Training Facility, and Ellington Field, 911 at any off-site location, and x5911 at WSTF.

9.3.13.1 If you think you or a coworker has been overexposed to pesticides, you shall:

- a. Notify your supervisor immediately or call your emergency number.
- b. Get prompt medical attention at the JSC Clinic.
- c. Take the actions shown in this table for specific overexposures:

<i>If . . .</i>	<i>Then you shall . . .</i>
Pesticides are spilled on you	<ul style="list-style-type: none"> • Wash the exposed skin with soap and water for at least 15 minutes • Change any contaminated clothing promptly • Shower well before putting on clean clothes
You feel dizzy or sick on the job	<ul style="list-style-type: none"> • Report it immediately to your supervisor • See a doctor if there is any chance illness is due to pesticides
You ever have an itching or a burning sensation on the skin while working with pesticides	<ul style="list-style-type: none"> • Immediately wash the affected area thoroughly with soap and water
You detect unpleasant odors or unusual odors	<ul style="list-style-type: none"> • Leave the area immediately and report it to your supervisor
Pesticides get into your eyes	<ul style="list-style-type: none"> • Rinse them thoroughly with clean water for at least 15 minutes and then have them checked by a doctor

d. Give the medical staff full details on the pesticide.

9.3.14 For more information on pesticide safety, laws, and regulations

- a. MSDSs/SDSs for specific pesticides
- b. The Federal Insecticide, Fungicide, and Rodenticide Act
- c. Structural Pest Control Board Law and Regulations, The State of Texas, January 1993
- d. Texas Pesticide Regulations, Texas Department of Agriculture, March 1990
- e. Texas Pesticide Laws, Texas Department of Agriculture, 1989
- f. *Texas Pesticide Applicator Trainer – General Manual: Commercial and Noncommercial*, Texas Agricultural Extension Service
- g. *Applying Pesticides Correctly – A Guide for Private and Commercial Applicators*, U.S. EPA, 1991

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- h. *Working Safely with Pesticide*, U.S. Department of Health, Education, and Welfare, Public Health Service, CDC, NIOSH, March 1976
- i. New Mexico Pesticide Laws, for WSTF