



## Worker Protection Standard (40 CFR Part 170)<sup>1</sup>

William J. Becker and Heather Pirozzoli<sup>2</sup>

The United States Environmental Protection Agency's (EPA) Worker Protection Standard (WPS) deals with the protection of agricultural workers from pesticide exposure. The Worker Protection Standard contains requirements designed to reduce the risks of illness or injury resulting from pesticide handlers' and agricultural workers' occupational exposures and agricultural workers' and other persons' accidental exposures to pesticides used in the production of agricultural plants on farms, nurseries, greenhouses and forests.

Growers/employers are primarily affected, as the standard holds them principally responsible for compliance. Agricultural workers and pesticide handlers will also be affected principally as beneficiaries of the new regulations. The revised WPS is directed toward two types of agricultural employees:

- pesticide handlers -- those who handle agricultural pesticides (mix, load, apply, clean or repair contaminated equipment, act as flag men, etc.), and
- agricultural workers -- those who perform tasks related to the cultivation and harvesting of plants on farms or in greenhouses, nurseries or forests.

### EXEMPTED PESTICIDE USES

The following pesticide uses are excepted from the WPS:

- government-sponsored public pest control,
- livestock uses,
- habitations, gardens, lawns, etc.,
- pasture/rangeland, rights-of-way and structures,
- vertebrate pests,
- attractants/repellents in traps,
- post-harvest, and
- research uses of unregistered pesticides.

### PESTICIDE LABELING CHANGES

The Environmental Protection Agency (EPA) has revised 40 CFR Part 156 to prescribe Worker Protection Standard (WPS) statements that must be placed on pesticide product labels and to establish interim restricted-entry intervals and personal protective equipment requirements.

---

1. This document is Fact Sheet AE-161, a series of the Agricultural Engineering Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: March 1993.

2. William J. Becker, professor, Agricultural Engineering, and Extension Safety Specialist; Heather Pirozzoli, graduate assistant and technical writer, FAIRS, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.

The Institute of Food and Agricultural Sciences is an equal opportunity/affirmative action employer authorized to provide research, educational information and other services only to individuals and institutions that function without regard to race, color, sex, age, handicap, or national origin. For information on obtaining other extension publications, contact your county Cooperative Extension Service office.  
Florida Cooperative Extension Service / Institute of Food and Agricultural Sciences / University of Florida / John T. Woeste, Dean

### **Compliance Dates**

None of the provisions of the Worker Protection Standard (WPS) are enforceable until specific worker protection requirements and statements referring to the WPS appear on pesticide labeling. Pesticides with the revised labeling may not be released for sale before April 15, 1993.

As soon as a product with revised labeling is used, the users must follow the specific product labeling requirements for Personal Protective Equipment (PPE), application restrictions, restricted-entry intervals and, if present, the requirement for both treated area posting and oral warnings.

Users need not meet certain more generic requirements of the WPS until April 15, 1994. These include requirements for decontamination sites, training, cleaning and maintenance of PPE, emergency assistance and displaying a pesticide safety poster and pesticide-specific information.

### **WPS Reference Statement**

The labeling of all affected agricultural pesticide products must include specific statements in an Agricultural-Use Requirements sub-section near the beginning of the Directions For Use Section. All product labeling must include standardized statements that reference the WPS and briefly list the major requirements of the WPS.

### **Prohibition Statement**

All product labeling must include a statement prohibiting application of the product in a way that will contact workers or other persons directly or through drift.

### **State Requirements**

All product labeling must include a statement advising users to contact their State pesticide agency for information about their State's pesticide requirements.

### **Product-Type Identification**

Any product that contains an organophosphate, n-methyl carbamate, or fumigant active ingredient must be identified as such on the label.

### **Spanish Language Statement**

The label of any product in Toxicity Category I or II must have the signal word in Spanish and a sentence in Spanish directing users to have all labeling explained to them.

### **Restricted-Entry Intervals (REI)**

All product labeling must include a statement prohibiting entry during the restricted-entry interval. All product labeling must specify a restricted-entry interval(s). Minimum interim restricted-entry intervals are established based on the acute toxicity of the active ingredient by the dermal, skin irritation and ocular routes of exposure.

Previously established entry intervals will be retained if they are based on entry data that meets Agency guidelines. Any other previously established entry interval is "interim" and would only be retained if it is longer than the interim REI established by the WPS.

A 48 hour REI is established for any product containing an active ingredient in Toxicity Category I (highly toxic). The REI for organophosphates is extended to 72 hours if these products are applied outdoors in areas with less than 25 inches of rainfall per year.

A 24 hour REI is established for any product containing an active ingredient in Toxicity Category II.

A 12 hour REI is established for all other products.

### **PROTECTION FOR ALL EMPLOYEES**

Employers of pesticide handlers and agricultural workers must make sure certain protection is provided to the workers/handlers in their employ.

### **Centrally Located Information**

If workers or handlers are employed on an agricultural establishment, the employer must establish a central location to:

- display a poster containing Worker Protection Standard specified information,
- list the location of the nearest emergency medical facility,

- post information about each pesticide application on the establishment, including:
  - location and description of treated area,
  - product name, EPA registration number and active ingredient(s),
  - time and date of the application, and
  - Restricted-Entry Interval (REI) for the pesticide.

The employer must also:

- keep information about applications **posted** until at least 30 days after the REI expires, and
- inform workers/handlers where these postings are located and allow access to them.

### **Emergency Assistance**

In the case of a suspected pesticide poisoning, the employer must make available prompt transportation to an appropriate medical facility. The employer must also provide the worker or handler, and the treating medical personnel with information from the pesticide label and information about how the suspected exposure occurred.

### **Decontamination**

Employers must provide workers with a decontamination site while the workers are performing permitted activities in a treated area where a Restricted-Entry Interval (REI) is in effect or performing any activities in a treated area when an REI has expired within the past 30 days. Further, employers must provide pesticide handlers with a decontamination site while handlers are performing handling activities.

Supplies for washing pesticides from the skin and eyes must be provided within 1/4 mile of all workers/handlers, including:

- enough water for washing (water must be of a quality and temperature that will not cause illness or injury when it contacts the skin or eyes or if it is swallowed),
- enough soap and single-use towels, and
- clean coveralls (at handler sites).

Eye flush water must be made immediately available to handlers and early-entry workers if they are required to wear protective eye wear.

### **Information Exchange**

An agricultural employer must be informed when a pesticide is to be applied on the agricultural establishment by a commercial applicator and must be provided the information needed to be posted at the central location plus:

- whether both oral warnings and treated area posting are required, and
- any other protection requirements on the label for workers or other people.

The employer of a commercial applicator must be informed of entry restrictions for and the location/description of any areas on the agricultural establishment that the commercial applicator may be in (or within 1/4 mile of) which may be treated with a pesticide or be under an Restricted-Entry Interval while the commercial applicator is on the establishment. The employer of the commercial applicator must provide this information to the commercial applicator.

### **PROTECTION FOR WORKERS**

Under the Worker Protection Standard, workers other than pesticide application personnel also are entitled to protection.

#### **Application Restrictions**

The employer must keep workers, other than trained and protected pesticide handlers, out of an area being treated.

Under some application conditions, employers must keep nursery or greenhouse workers out of locations that are near an area being treated.

#### **Entry Restrictions**

If contact with pesticides is possible, the employer must keep workers from entering a treated area until the Restricted-Entry Interval is over. There are several exceptions:

- non-hand labor tasks can take place up to one hour per worker per day,

- tasks can take place, if necessary, due to a declared agricultural emergency, and
- additional exceptions can be requested of EPA.

Employers must protect early-entry workers by making sure of the following:

- there is **no** entry for the first four hours following the end of the application and until any label-specified inhalation exposure level or the WPS ventilation criteria have been met,
- workers are informed about health effects and safety information from pesticide labeling,
- Personal Protective Equipment (PPE) is provided, cleaned and maintained for the workers,
- workers wear and uses PPE properly,
- workers are instructed how to put on, use and remove the PPE and about the importance of washing thoroughly after removing PPE,
- workers are provided a clean place to put on and take off PPE and to store personal clothing,
- action will be taken, if necessary, to prevent heat-related illness while wearing PPE,
- soap, towels and water are provided when PPE is removed, and
- no contaminated PPE is worn or taken home.

### **Training for Workers**

Unless already a certified applicator or a trained handler, each early-entry worker must be trained before performing permitted tasks in a treated area which remains under a Restricted Entry Interval (REI). This training will take place before the employee's 6th day of entry into treated areas on an agricultural establishment within 30 days of the REI expiration (until October 1997, workers must be trained before their 16th day of such entry).

The training must include written or audiovisual materials and be presented in a manner the worker can understand, using nontechnical terms. The trainer must be a certified applicator, a trainer of certified applicators, someone who has completed an approved train-the-trainer course or a trained

handler. The training program must contain the general pesticide safety information to be specified in the WPS. This program is being developed and should be available through your County Extension Office in late 1993.

### **Notice of Applications**

On farms, nurseries and forests, each worker who might enter a treated area or walk within 1/4 mile of a treated area during application or a Restricted Entry Interval (REI) must be warned orally or by posting warning signs at normal entrances to the treated area.

In greenhouses, each worker who might enter a greenhouse during an application or an REI must be warned by posted warning signs at entrances to treated areas.

Some pesticides will have a statement on the product labeling requiring both posting of warning signs and oral warnings to workers. The posted sign must:

- include the words "Pesticides/Pesticidas -- Danger/Peligro -- Keep Out/No Entre",
- include the Worker Protection Standard warning-sign symbol (a stern face and an upraised hand),
- meet size and color requirements, and
- be visible at all usual entrances to the treated area.

The oral warning must:

- give location and description of treated area,
- state the time during which entry is restricted, and
- instruct workers not to enter the treated area until the REI is over.

### **PROTECTION FOR HANDLERS**

Under the Worker Protection Standard, handlers are entitled to certain protections.

### **Application Restrictions**

The employer and the handler must make sure that no pesticide is applied so as to contact, either directly or through drift, any person other than a trained and protected handler. Also, the employer must make sure that any handler handling a pesticide with a skull and crossbones symbol is monitored visually or by voice contact at least every two hours. Further, the employer must make sure that any handler who is handling a fumigant in a greenhouse maintains continuous visual or voice contact with another handler.

### **Personal Protective Equipment (PPE)**

When PPE is required by the product labeling for the handling activity, the employer must:

- provide the PPE to each pesticide handler,
- clean and maintain the PPE correctly,
- make sure that each handler wears and uses the PPE correctly,
- provide each handler a clean place to put on and take off PPE and to store personal clothing,
- take action, if necessary, to prevent heat-related illness while PPE is being worn,
- provide soap, towels and water to each handler at the end of the handling activity when PPE is removed, and
- not allow any a handler to wear home or take home PPE worn for handling activities.

### **Knowledge of Pesticide Labeling**

The employer must make sure that each handler has either read the pesticide labeling or been informed of the information on the labeling. The pesticide product labeling must be accessible to the handler during the handling activity.

### **Safe Operation of Equipment**

The employer must make sure that each handler is instructed in the safe operation of handling equipment. In addition, the employer must make sure that all handling equipment is inspected and in good operating condition before each use.

### **Training for Handlers**

Unless already a certified applicator or trained to use restricted-use pesticides, handlers must be trained before performing handler tasks.

The training must include written or audiovisual materials and be presented in a manner the handler can understand. The training program must contain the general pesticide safety and correct handling practice information specified in the Worker Protection Standard. This program is being developed and should be available through your County Extension Office in late 1993.

The trainer must be a certified applicator, a trainer of certified applicators, or someone who has completed an approved train-the-trainer course.

### **Cleaning and Maintaining Personal Protective Equipment (PPE)**

The employer must make sure that anyone cleaning PPE is informed:

- that the PPE may have pesticides on it,
- of the potentially harmful effects of pesticides, and
- of the correct ways to handle and clean PPE.

The employer must make sure that:

- PPE is inspected and repaired before each use,
- PPE is cleaned according to manufacturers' instructions or in detergent and hot water,
- PPE that cannot be cleaned is disposed of,
- clothing drenched with concentrates of Danger or Warning pesticides are disposed of,
- PPE is kept, washed and stored separately from personal clothing,
- clean PPE is dried appropriately, and
- respirator filters, cartridges and canisters are replaced as often as required.

## **PERSONAL PROTECTIVE EQUIPMENT (PPE) SUBSTITUTIONS AND EXCEPTIONS**

Substitutions and exceptions to PPE are permitted when engineering controls are used.

Pilots in open cockpits are exempted from any chemical-resistant footwear requirement, a helmet may be substituted for chemical-resistant headgear and a visor may be substituted for protective eye wear.

Pilots in closed cockpits are exempted from all PPE requirements; long-sleeved shirt, long pants, shoes and socks are required.

Handlers using closed systems for mixing and loading are exempted from all PPE except chemical-resistant gloves and apron; long-sleeved shirt, long pants, shoes and socks are required. If the closed system is pressurized, protective eye wear is also required.

Handlers using enclosed cabs are exempted from all PPE except for any respirator requirement; long-sleeved shirt, long pants, shoes and socks are required. Respirators are waived if the enclosed cab offers respiratory protection equal or greater to the type of respirator specified.

Handlers or early entry workers working with plants with sharp thorns may wear leather gloves over chemical-resistant glove liners.

Handlers or early entry workers working in rough terrain may wear leather boots instead of chemical-resistant footwear.

## **REQUESTS FOR EXCEPTION TO THE RESTRICTED ENTRY INTERVAL (REI)**

Affected parties may request that EPA grant an exception to the prohibition of routine hand labor tasks during an REI. Exception request must include specified information about the need, nature, feasibility and basis for the request.

EPA will issue a notice that a request has been received and allow at least 30 days for public comment. EPA will then publish its decision.

If no decision is issued by nine months after the close of the comment period, applicants may presume the request is denied unless the deadline is extended due to the complexity of the request or the number of requests being reviewed. If a request is granted, employers must provide the early-entry workers with the protection required by the WPS for other early entry.

EPA may withdraw exceptions to REI's if information indicates that the health risks to workers are unacceptable or if it is no longer needed. Affected parties may request a hearing when an exception is withdrawn.

EPA is in the process of issuing a notice that it is considering granting an exception to REI's for the cut flower and cut fern industry.

## **PESTICIDE LABELING CHANGES**

The EPA has revised 40 CFR Part 156 to prescribe Worker Protection Standard statements that must be placed on pesticide product labeling and to establish interim Restricted-Entry Intervals and Personal Protective Equipment requirements.