# **Label Review Manual**

# Chapter 10: Worker Protection Label



## I. Introduction

This chapter provides guidance for reviewing statements required for the protection of occupational users of pesticides, including agricultural workers and handlers. While much of this chapter focuses on the requirements 40 CFR 156 (Labeling Requirements for Pesticides and Devices) Subpart K (Worker Protection Statements) designed to implement the protections of the Worker Protection Standard (WPS)(40 CFR 170), it includes protections required for non-WPS occupational users of pesticides as well. The portions of the label discussed in this chapter include the signal word, certain Precautionary Statements (Personal Protective Equipment (PPE), Engineering Controls, User Safety Requirements, User Safety Recommendations) and certain Directions for Use (Agricultural Use Requirements, Restricted Entry Intervals, Early Entry PPE, Notification Statements and Non-Agricultural Use Requirements). To the extent possible, label reviewers should ensure that all products with occupational exposure have appropriate risk mitigation measures equivalent to those measures contained in this chapter.

# II. Background

Some substances and products may be excluded from FIFRA registration if they meet certain conditions or criteria. 40 CFR 152.6 sets out the following types of products that fall into this category.

## A. The Worker Protection Standard

The Labeling Requirements for Pesticides and Devices, Worker Protection Statements (40 CFR 156, Subpart K (156.200 -212)) were published in the Federal Register on August 21, 1992, as was The Worker Protection Standard (WPS) (40 CFR 170). Together these regulations establish standards and labeling requirements for worker protection. Further, PR Notices 93-7 and 93-11 provide Agency guidance for complying with the WPS. The correct product specific WPS labeling can be found in the Acute Toxicity Data Evaluation Records (DER) for any given product.

### B. Worker Risk Assessment

As part of the pesticide registration, reregistration, and registration review processes, a comprehensive worker risk assessment is performed. The worker risk assessment is based on toxicological criteria and potential for dermal, ocular, oral or inhalation exposure. Based on that risk assessment, worker protection labeling specific to the active ingredient is established. When necessary to address risk to non-WPS workers, the regulatory assessment document goes beyond the WPS to provide labeling protection for those workers not subject to the WPS. Chemical specific worker protection labeling requirements can be found in the regulatory assessment documents (Reregistration Eligibility Decision (RED), Registration Review Documents, etc.).

## C. Evaluating the Regulatory Assessment Document and the Acute Toxicity Review

To determine the correct worker protection labeling for a given product, the label reviewer must consider the chemical specific worker protection labeling defined by the RED, the most current regulatory risk assessment document, and the product specific labeling defined in the acute toxicity review and/or guidance contained in this chapter. In most cases, the correct worker protection labeling is determined by taking the most restrictive statements from each source to derive the final handler PPE statements for the labeling.

# III. Determination of products subject to the WPS

## A. Scope of WPS

Review the criteria below to determine whether the label under review involves a product that is subject to the WPS. The WPS does not apply to manufacturing use products, or to unregistered pesticides used under an experimental use permit issued under *FIFRA section 5*, or under an exemption issued under *FIFRA section 18*. This determination is important because WPS products have unique labeling requirements. A summary table of the scope of WPS is also provided in Appendix A of this chapter to assist label reviewers in determining if a product is subject to WPS.

## B. Criteria for Determining WPS Applicability

Does the product bear directions for use on an agricultural establishment (defined at 40 CFR 170.3 as "any farm, forest, nursery, or greenhouse") or involving the production of an agricultural plant (defined at 40 CFR 170.3 as "any plant grown or maintained for commercial or research purposes and includes, but is not limited to, food, feed, and fiber plants; trees; turf grass; flowers, shrubs; ornamentals; and seedlings"). See 40 CFR 170.102. Or does the product bear labeling that could reasonably permit such a use?

NO, the product does not bear directions for use on an agricultural establishment or involving the production of an agricultural plant. The product is not subject to the WPS. The requirements in this chapter do not apply.

YES, the product does bear directions for use on an agricultural establishment or involving the production of an agricultural plant. Does the product meet any of the exceptions listed below?

**Exceptions:** The WPS contains exceptions for certain uses. WPS does not apply when any pesticide is applied on an agricultural establishment or involving the production of an agricultural plant in the following circumstances (40 CFR 170.103):

For mosquito abatement, Mediterranean fruit fly eradication, or similar <u>area-wide</u> <u>public pest control programs</u> sponsored by governmental entities (area-wide programs are those where large swaths of public, private, residential, commercial and/or agricultural land/property is sprayed and a land owner has no control over

the spraying; this does not include the boll weevil and gypsy moth eradication programs or other similar program where specific areas of forests or agricultural land (e.g., cropland, Christmas tree nurseries, managed forests, etc.) are sprayed under arrangements with the land owner);

- ▶ On livestock or other animals, or in or around animal premises;
- On plants grown for other than commercial or research purposes, which may include plants in habitations, home fruit and vegetable gardens, and home greenhouses;
- On plants that are in ornamental gardens, parks, golf courses and public or private lawns and grounds, and that are intended only for aesthetic purposes or climatic modification;
- By injection directly into agricultural plants. Direct injection does not include "hack and squirt", "drill and spray", "chemigation", soil-incorporation, or soil injection;
- In a manner not directly related to the production of agricultural plants, including, but not limited to, structural pest control, control of vegetation along rights-of-way and in other non-crop areas, and non-managed pasture and rangeland use (i.e., if the registrant wants to include directions for cutting hay in pastures or rangelands then the product must bear WPS requirements);
- For control of vertebrate pests around agricultural premises (vertebrate pest control applications for the purposes of crop protection is covered);
- As attractants or repellents in traps;
- ▶ Post harvest treatments on the harvested portions of agricultural plants or harvested timbers; and
- For research uses of unregistered pesticides.

If the product's directions for use allow for any uses that are not in the above exceptions, the product IS subject to the WPS. Keep reading.

If the product's directions for use contain only uses that fall under one or more of the above exceptions, the product is NOT subject to the WPS. The WPS-specific requirements in this chapter do not apply. Other non-WPS user protections, which may apply, are discussed later in this chapter.

1. Exceptions for Seed Treatments: The WPS does apply when pesticide products contain directions for use which allow treating seed at an agricultural establishment at or immediately before planting (such as through use of hopper boxes, planter boxes, slurry boxes, or tractor-mounted treaters). If seed treatment is only allowed off-farm (for example treating seed in a plant where seed is bagged to be used by growers) the WPS does not apply.

For further details, see *PR Notice 93-11, Supplement F*, and information at the following Website: (www.epa.gov/sites/production/files/2015-06/documents/wps interpretive policy 06 26 15.pdf)

Remember, in some cases it may not be clear whether or not a product is "within-scope" of the WPS if the product could be used on agricultural plants such as vegetables or ornamentals, but the registrant intends the product for an exempted use. If the registrant's intention is to remove the product from the scope of the WPS, then clear language should be required on the label that limits or prohibits where this product can be applied (i.e., on WPS covered agricultural establishments), rather than who may apply it. This can be done by using exclusionary labeling statements such as the following:

"Not for use in commercial or research nurseries or greenhouses",

or

"Not for use on agricultural establishments covered by the WPS (40 CFR Part 170)",

Of

"Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes",

or

"For use only on residential lawns."

## **IV. Signal word**

Products subject to the WPS that are classified as toxicity category I or II must also bear the corresponding Spanish signal word and the Spanish statement provided below. See 40 CFR 156.206(e). The Spanish signal word and statement below must appear in close proximity to the English signal word. The Spanish signal word for toxicity category I is "PELIGRO" and the Spanish signal word for toxicity category II is "AVISO". The statement that must appear on toxicity category I and II WPS products is as follows (the signal word Aviso and the statement are optional for toxicity categories III and IV):

"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"

# V. Split labeling for WPS and non-WPS products

If a registered product contains uses that are both subject to WPS and not subject to WPS, the registrant should be encouraged to have separate registrations for each use type. However, the registrant is allowed to register the product with both use types on one label and/or choose to market the product with two sub-labels (under one registration) featuring only one of the use

types on each sub-label. The registrant may market the product under two distinctly different product labels, using additional brand names for the WPS labeling and non-WPS labeling. If the registrant chooses to market the product with both WPS and non-WPS uses, a Non-Agricultural Use Requirements box should be used to contain all non-WPS worker related restrictions. In either case, the registrant should submit a master label that clearly distinguishes between the two separate sub-labels. The registrant should not provide the WPS labeling merely as a supplemental label to a non-WPS product. See *PR Notice 93-7*.

Many pesticide products also contain residential consumer uses along with WPS and non-WPS uses. Because the personal protective equipment and other worker protection statements may be significantly different for occupational and residential consumer products, the registrant should be strongly encouraged to submit separate registrations with one containing the WPS and non-WPS uses, and the other containing the residential consumer uses.

# VI. Precautionary statements

There are four types of worker protection statements that generally appear in the Precautionary Statements of a label. They are as follows:

- A. Handler Personal Protective Equipment (PPE)
- B. Statements for Contaminated PPE
- C. Engineering Controls
- D. User Safety Recommendations

Certain precautionary statements are required by Part 156 Subpart K (Worker Protection Statements (40 CFR 156.200-212) for products subject to the WPS. These statements may also be needed on non-WPS products if required by a regulatory assessment document. The reviewer should also refer to *Chapter 7* for additional, non-WPS, information on determining the correct toxicity category and other appropriate precautionary language.

## A. Handler Personal Protective Equipment (PPE)

• Determining the Correct Product-Specific PPE Requirements. The correct handler PPE to be specified on the product labeling is determined by comparing the product-specific handler PPE requirements specified in the Acute Toxicity Review for a product with the chemical-specific handler PPE requirements specified in the regulatory assessment document. In most cases, the reviewer uses a combination of the most protective PPE requirements given in the regulatory assessment document and the Acute Toxicity Review to determine the correct handler PPE labeling statements.

As noted above, the correct product specific handler PPE should be specified in the Acute Toxicity Review for a given product. The process used to derive the correct product-specific handler PPE is described in sections 1 through 4 below. In some cases the reviewer may need to use this process to determine the correct product-specific handler PPE labeling statements if the required handler PPE information isn't specified

in the Acute Toxicity review or if there are questions about the specified PPE requirements.

- Compare Product-Specific PPE with PPE Required by the Regulatory Assessment Document. After completing sections 1 through 4 below and identifying the correct handler PPE based on the product-specific acute toxicity data (or based on the Acute Toxicity Review), the reviewer should consider the handler PPE required by the regulatory assessment document for the active ingredient (such as a RED), if one has been published. A combination of the most protective PPE specified in the Acute Toxicity Review (or derived from sections 1 through 4 below) and the regulatory assessment document must be used to determine the appropriate product labeling. For guidance on which PPE is considered more protective, consult Table 7 below.
- Note: All end-use <u>occupational use products</u> (WPS or non-WPS) need to have the minimum baseline label-required work clothes for handlers consisting of long-sleeved shirt, long pants, socks and shoes. Technically these work clothes items are not considered PPE, but they can be required on labels (see 40 CFR 170.240 (b)).
- Identifying the Correct Product-Specific Handler Protective Clothing. Once the correct
  toxicity category has been established, the product-specific handler PPE can be identified.
  Reviewers may obtain the correct product-specific handler protective clothing from the Acute
  Toxicity Review. Table 1 below shows how the correct product-specific handler protective
  clothing is derived in the Acute Toxicity Review based on the toxicity category for a given
  product.

**Table 1. Handler PPE for WPS Products** 

| Route of  | Toxicity Category by Route of Exposure of End-Use Product  |  |  |                                   |  |  |
|---|--|--|--|-----------------------------------|--|--|
| Exposure  | I<br>DANGER  | II<br>WARNING  | III<br>CAUTION   | IV<br>CAUTION                     |  |  |
| Dermal Toxicity<br>or Skin Irritation<br>Potential <sup>1</sup> | Coveralls worn over long-sleeved shirt and long pants      | Coveralls worn over short-sleeved shirt and short pants    | Long-sleeved shirt<br>and long pants                       | Long-sleeved shirt and long pants |  |  |
|   | Socks  | Socks  | Socks  | Socks                             |  |  |
|   | Chemical-resistant footwear                                | Chemical-resistant footwear                                | Shoes  | Shoes                             |  |  |
|   | Waterproof or<br>Chemical-resistant<br>Gloves <sup>2</sup> | Waterproof or<br>Chemical-resistant<br>Gloves <sup>2</sup> | Waterproof or<br>Chemical-resistant<br>Gloves <sup>2</sup> | No minimum <sup>4</sup>           |  |  |
| Inhalation<br>Toxicity  | Respiratory protection device <sup>3</sup>                 | Respiratory protection device <sup>3</sup>                 | No minimum <sup>4</sup>                                    | No minimum <sup>4</sup>           |  |  |
| Eye Irritation<br>Potential                                     | Protective eyewear <sup>5</sup>                            | Protective eyewear <sup>5</sup>                            | No minimum <sup>4</sup>                                    | No minimum <sup>4</sup>           |  |  |

<sup>&</sup>lt;sup>1</sup> If dermal toxicity and skin irritation toxicity categories are different, PPE shall be determined by the more severe toxicity category of the two. If dermal toxicity or skin irritation is category I or II, refer to Section 2 below to determine if additional PPE is required beyond that specified in Table 1

2. Identifying Additional Product-Specific Handler Protective Clothing (Apron and Headgear). In addition to PPE listed in Table 1, additional, more protective PPE is required for products that are classified as toxicity category I or II for acute dermal toxicity or skin irritation. If the label under review does not involve a category I or II classification for either of these studies, skip this section. If the label under review does involve a category I or II classification for either the acute dermal toxicity or skin irritation, review Table 2 below to determine the additional product specific PPE.

Table 2. Additional Dermal Toxicity and/or Skin Irritation PPE For Toxicity Category I Or II (See 40 CFR 156.212(i))

| Conditions Requiring Additional PPE and Labeling  | Required PPE and Labeling                                     |
|---|---|
| All products that are not ready-to-use and do not require a chemical-resistant suit must bear the corresponding statement:                          | "When mixing and loading wear a chemical-resistant apron".    |
| All products labeled for application procedures that might involve overhead exposure must bear the corresponding statement:                         | "For overhead exposure wear chemical-<br>resistant headgear". |
| All products labeled for use of equipment other than the product container to mix, load or apply the product must bear the corresponding statement: | "When cleaning equipment wear a chemical-resistant apron".    |

- 3. Product-Specific Glove Selection for WPS Handlers. The specific glove or gloves that are acceptable to meet the requirements for handler PPE must be listed on the label. See 40 CFR 156.212(f). Table 3, the EPA Chemical Resistance Category Selection Chart for Gloves, lists the types of waterproof or chemical-resistant gloves for products classified as toxicity category I, II, or III for acute dermal toxicity or primary skin irritation. See 40 CFR 156.212(e). It is EPA's current view that the Chemical Resistance Category Selection Chart for Gloves should not be placed or referenced on the product label. The chart is intended for EPA and registrant guidance only to determine the required glove type and glove statement for the label. Do not list the solvent category (A-H) on the product label.
  - Determining the Correct Product-Specific Glove Requirements for WPS Handlers. The correct glove type(s) to be specified on the product labeling for WPS-defined handler activities is determined based on the solvent in the product formulation. Table 4 below lists the solvent category for common solvents. The glove(s) selected must be rated as providing a "high" level of chemical resistance for the solvent category found

<sup>&</sup>lt;sup>2</sup> Refer to Section 3, Table 3 to determine the specific type of waterproof or chemical-resistant glove.

<sup>&</sup>lt;sup>3</sup> Refer to Section 4 to determine the specific type of respiratory protection.

<sup>&</sup>lt;sup>4</sup> Although no minimum PPE is required for these toxicity categories and routes of exposure, the Agency may require PPE on a product-specific basis.

<sup>&</sup>lt;sup>5</sup> "Protective eyewear" is to be used instead of "goggles" and/or "face shield" and/or "shielded safety glasses" and similar terms to describe eye protection, unless the assessment requires a specific type of eyewear for adequate protection.

in Table 4 in order to be listed as an acceptable glove type on the product labeling for WPS handling activities.

Table 4 provides a listing of solvents that EPA believes are likely to be contained in pesticide products that are subject to the Worker Protection Standard. The appropriate chemical resistance category is listed for each solvent. IMPORTANT NOTE: If the chemical resistance category for a solvent is listed as "F or G", then the correct category is: "F" if the solvent constitutes less than 40 percent of the end-use product; or "G" if the solvent constitutes 40 percent or more of the end-use product. For those solvents not listed, the label reviewer should contact the Health Effects Division's Chemistry and Exposure Branch (CEB-I).

- Glove Requirements for WPS Handlers for Products in Solvent Category A (Dry and Water-Based Formulations). Products in solvent category A (i.e., those with dry or water-based formulations) DO NOT require chemical-resistant gloves. Waterproof gloves provide the necessary handler protection. For category A, listing of specific gloves types is not necessary. The correct glove statement for solid and aqueous-based product formulations in solvent category A is indicated below:
  - (a) Solid Formulations: For those products which are applied as solids or formulated as solids and diluted solely with water for application, the glove statement shall specify: "Wear waterproof gloves". See 40 CFR § 156.212(f)(2).
  - **(b) Aqueous-Based Formulations:** For those products which are applied as formulated, and/or diluted solely with water for application, the glove statement shall specify: "**Wear waterproof gloves**". See *40 CFR 156.212(f)(3)*.
- Glove Requirements for WPS Handlers for Products in Solvent Categories B H

  (Other Liquid Formulations). For all other liquid formulation products which are not aqueous-based, and applied as formulated or diluted with liquids other than water, (constitutes more than 5% of the end-use product), the glove statement shall direct users to wear the chemical resistant gloves specified, and the label statement shall specify ALL of the acceptable glove types from Table 3 that provide a "high" level of chemical resistance for the solvent category of the product in question.

Based on Table 3, the correct glove statement for handlers for a product in solvent category B would be, "Wear butyl rubber or barrier laminate gloves". The correct glove statement for handlers for a product in solvent category H would be, "Wear barrier laminate or viton gloves". 40 CFR 156.212(f)(4).

• NOTE: It is important that ONLY glove types rated as providing a "high" level of chemical resistance for the product's solvent category found in Table 4 are selected as acceptable glove types for listing on the product labeling for mixing, loading, or application.

- NOTE: It is important that ALL glove types that provide a high level of chemical resistance for the solvent category be listed on the label as acceptable glove types so users have flexibility to select the most cost-effective glove option that will provide the required protection.
- Glove Requirements for WPS Handlers for Gaseous Formulations or Formulations Applied as Gases. For products that are applied or formulated as gases, any existing glove statement established before 10/20/1992 including any glove prohibition statement will continue to apply. If no glove statement or glove prohibition currently exists on the label, then the glove statement shall be "wear nitrile or butyl rubber gloves". 40 CFR 156.212(f)(5)
- NOTE: Registrants can specify a chemical-resistant glove type other than those specified in Table 3 if information is available that indicates that another glove type is more appropriate or provides greater protection. The registrant needs to justify why the alternative glove should be used. The label must indicate the specific type of chemical-resistant glove(s) that must be worn (for example, Wear nitrile or butyl rubber gloves; statement would be appropriate for the category of solvent). See 40 CFR 156.212(f)(1).

**Table 3. EPA Chemical Resistance Category Selection Chart for Gloves** 

(For use when selecting glove types to be listed in the PPE section on pesticide label. Only select glove(s) that indicate a high level of chemical resistance.)

| giove(s) that i                             | ndicate a niç       | an ievei oi                     | CHEITICALTE                       | esistance.)                             |                                 |                   |   |                       |
|---|---------------------|---------------------------------|-----------------------------------|---|---------------------------------|-------------------|---|-----------------------|
| Solvent<br>Category<br>(see Table<br>4)     | Barrier<br>Laminate | Butyl<br>Rubber<br>≥ 14<br>mils | Nitrile<br>Rubber<br>≥ 14<br>mils | Neo-<br>prene<br>Rubber<br>≥ 14<br>mils | Natural<br>Rubber*<br>≥ 14 mils | Poly-<br>ethylene | Polyvinyl<br>Chloride<br>(PVC)<br>≥ 14 mils | Viton<br>≥ 14<br>mils |
| <b>A</b> (dry and water-based formulations) | high                | high                            | high                              | high                                    | high                            | high              | high  | high                  |
| В   | high                | high                            | slight                            | slight                                  | none                            | slight            | slight                                      | slight                |
| С   | high                | high                            | high                              | high                                    | moderate                        | moderate          | high  | high                  |
| D   | high                | high                            | moderate                          | moderate                                | none                            | none              | none  | slight                |
| E   | high                | slight                          | high                              | high                                    | slight                          | none              | moderate                                    | high                  |
| F   | high                | high                            | high                              | moderate                                | slight                          | none              | slight                                      | high                  |
| G   | high                | slight                          | slight                            | slight                                  | none                            | none              | none  | high                  |
| Н   | high                | slight                          | slight                            | slight                                  | none                            | none              | none  | High                  |

<sup>\*</sup>includes natural rubber blends and laminates

**HIGH:** Highly chemical-resistant. Clean or replace PPE at end of each day's work period. Rinse off pesticides at rest breaks.

MODERATE: Moderately chemical-resistant. Clean or replace within an hour or two of contact

SLIGHT: Slightly chemical-resistant. Clean or replace within 10 minutes of contact

**NONE:** No chemical-resistance.

NOTE: The EPA Chemical Resistance Category Selection Chart for Gloves should never be placed or referenced on the product label; it is intended for EPA and registrant guidance only.

Table 4. Solvent List (PRN 93-7, Supplement 2)

| Solvent (chemical name or Trade name) | Chemical<br>Resistance<br>Category | Solvent (chemical name or Trade name) | Chemical<br>Resistance<br>Category |
|---------------------------------------|------------------------------------|---------------------------------------|------------------------------------|
| Acetone                               | В                                  | Isopar L                              | Е                                  |
| Amyl Acetate                          | D                                  | Isopar M                              | Е                                  |
| Aromatic 100                          | F or G                             | Isopar V                              | E                                  |
| Aromatic 150                          | F or G                             | Isophorone                            | В                                  |
| Aromatic 200                          | F or G                             | Isopropanol                           | С                                  |
| Aromatic Petroleum                    | F or G                             | Kerosene                              | E                                  |
| Butoxypolypropylene glycol            | С                                  | Methanol                              | С                                  |
| Butyl acetate                         | D                                  | Methyl amyl ketone                    | В                                  |
| Cyclohexanone                         | В                                  | Methyl Carbitol                       | С                                  |
| Diacetone alcohol                     | С                                  | Methyl isobutyl ketone                | В                                  |
| Diethanolamine                        | С                                  | Mineral oil                           | E                                  |
| Diesel fuel                           | Е                                  | Mineral spirits                       | E                                  |
| Dipropylene glycol monothylether      | С                                  | Naphtha                               | E                                  |
| Ethanol                               | С                                  | N-methyl pyrrolidone                  | В                                  |
| Ethylene glycol                       | С                                  | Penreco 2251 oil                      | E                                  |
| Exxon 589                             | E                                  | Petroleum Distillate (aliphatic)      | E                                  |
| Heavy Aromatic Naphtha                | F or G                             | Petroleum oil                         | Е                                  |
| Hexylene glycol                       | С                                  | Propylene glycol                      | С                                  |
| Isopar B                              | Е                                  | T 500-100                             | F or G                             |
| Isopar C                              | Е                                  | Tetrahydro-furfuryl alcohol           | С                                  |
| Isopar E                              | E                                  | 1,1,1-Trichloroethane                 | Н                                  |
| Isopar G                              | E                                  | Water                                 | А                                  |
| Isopar H                              | E                                  | Xylene                                | F or G                             |
| Isopar K                              | E                                  | Xylene range solvents                 | F or G                             |

**4. Product-Specific Respiratory Protection Device (RPD) Selection for Handlers.** RPD(s) are required for all products classified as toxicity category I or II for acute inhalation. See *40 CFR 156.212(g)*. Review the RPD types in Table 5 and determine if the label lists the appropriate type based on the product description and toxicity category. If the registrant has submitted information showing that a more protective RPD should be selected, allow the registrant to retain that RPD requirement on the label under review. Information that could support an alternate RPD could be the submission of the product vapor pressure data indicating that the RPD specified in Table 5 would not provide adequate protection or could pose an increased risk to the user.

In June 1995, the National Institute for Occupational Safety and Health (NIOSH) revised the certification criteria and definitions for nonpowered, air-purifying particulate respirators.

42 CFR Part 84 replaced the outdated certification standards in 30 CFR Part 11 regulations.

The Part 84 regulation created a total of nine classes of particulate filters; these classes apply only to nonpowered, air-purifying, particulate filter respirators.

**Table 5. Respirator Language** 

| Pesticide Type  | Vapor Pressure<br>(mmHG)       | Respirator Language   | Respirator Language   |  |  |
|---|--------------------------------|---|---|--|--|
|   | (illine)                       | Oil in Application Mix  | No Oil in Application<br>Mix  |  |  |
| Non-Organic Gaseous<br>Products: Products that<br>are formulated or<br>applied as a gas that are<br>not organically based<br>such as phosphine  | 1 x 10 <sup>-3</sup> or lower  | Case by case basis  | Case by case basis  |  |  |
| Organic Gaseous Products Used in Enclosed Areas: Products that are formulated or applied as a gas (space and soil fumigants) and that may be used in greenhouses or other enclosed areas must bear labeling specifying the following RPD requirements and statement | 1 x 10 <sup>-3</sup> or lower  | For handling activities in enclosed areas, use either a NIOSH approved supplied-air respirator with NIOSH approval number prefix 19C; or a self-contained breathing apparatus (SCBA) with NIOSH approval number prefix TC-13F.  | For handling activities in enclosed areas, use either a NIOSH approved supplied-air respirator with NIOSH approval number prefix 19C; or a self-contained breathing apparatus (SCBA) with NIOSH approval number prefix TC-13F.  |  |  |
| Organic Gaseous Products Applies Outdoors: products that are formulated or applied as a gas (space and soil fumigants) and that may be applied outdoors must bear labeling specifying the following RPD requirements and statement:                                 | 1 x 10 <sup>-03</sup> or lower | A NIOSH-approved respirator with an organic vapor (OV) cartridge with a combination R or P filter, with NIOSH approval number prefix TC-84A; or NIOSH approved gas mask with an organic vapor canister with NIOSH approval number prefix TC-14G; or a NIOSH approved powered air purifying respirator with organic vapor (OV) cartridge and combination HE filter, with NIOSH approval prefix TC – 23C. | A NIOSH-approved respirator with an organic vapor (OV) cartridge with a combination N, R, or P filter with NIOSH approval number prefix 84A; or NIOSH approved gas mask with an organic vapor canister with NIOSH approval number prefix TC – 14G; or a NIOSH approved powered air purifying respirator with organic vapor (OV) cartridge and combination HE filter with NIOSH approval number prefix TC 23C. |  |  |
| Solid Products: Products that are formulated and applied as solids.   | NA                             | A NIOSH approved particulate respirator with any R or P filter with NIOSH approval  | A NIOSH approved particulate respirator with any N, R or P filter with NIOSH approval number  |  |  |

| Liquid Products in<br>Toxicity Category I:<br>Products that are<br>formulated or applied as<br>liquids: | Lower than 1 x 10 <sup>-05</sup>   | number prefix TC-84A; or a NIOSH approved powered air purifying respirator with HE filter with NIOSH approval number prefix TC-21C.  A NIOSH approved particulate respirator with an R or P filter with NIOSH approval number prefix TC – 84A.; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix  | prefix TC-84A; or a NIOSH approved powered air purifying respirator with HE filter with NIOSH approval number prefix TC-21C.  A NIOSH approved particulate respirator with any N, R, or P filter, NIOSH approval number prefix TC-84A.; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.  |
|---|------------------------------------|---|---|
|   | Greater than 1 x 10 <sup>-05</sup> | A NIOSH approved respirator with an organic vapor (OV) cartridge with a combination R or P filter, with NIOSH approval number prefix TC – 84A; or a NIOSH approved powered air purifying respirator with organic vapor (OV) cartridge and combination HE filter with NIOSH approval number prefix TC-23C; or a NIOSH approved gas mask with an organic vapor canister with NIOSH approval number prefix TC – 14G. | A NIOSH approved respirator with an organic vapor (OV) cartridge with any combination N, R or P filter with NIOSH approval number prefix TC – 84A; or a NIOSH approved powered air purifying respirator with organic vapor (OV) cartridge and combination HE filter with NIOSH approval number prefix TC-23C; or a NIOSH approved gas mask with an organic vapor canister with NIOSH approval number prefix TC – 14G. |
| Liquid Products in<br>Toxicity Category II:<br>Products that are<br>formulated or applied<br>as liquids | Lower than 1 x 10 <sup>-04</sup>   | A NIOSH approved particulate respirator, with any R or P filter with NIOSH approval number prefix TC-84A.; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.   | A NIOSH approved particulate filter with any N, R, P filter with NIOSH approval number prefix TC-84A.; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.   |
|   | Greater than 1 x 10 <sup>-04</sup> | A NIOSH approved respirator with an organic vapor (OV) cartridge with a combination R or P filter,  | A NIOSH approved respirator with an organic vapor (OV) cartridge with a combination N, R or P filter with NIOSH approval  |

with NIOSH approval number prefix TC – 84A; or a NIOSH approved gas mask with a canister with NIOSH approval number prefix TC – 14G; or a NIOSH approved powered air purifying respirator with organic vapor (OV) cartridge and combination HE filter with NIOSH approval number prefix TC – 23C.

number prefix TC – 84A; or a NIOSH approved gas mask with a canister with NIOSH approval number prefix TC – 14G; or powered air purifying respirator with organic vapor (OV) cartridge and combination HE filter with NIOSH approval number prefix TC – 23C.

(a) Selection Criteria. In determining whether a pesticide product label should require the use of non-oil resistant N-series, oil-resistant R-series, or oil-proof P-series respirators the reviewer should first examine the CSF for the presence of oil compounds in the product formulation at any concentration. NIOSH defines oil as a high boiling-point, liquid hydrocarbon that will accumulate on a respirator's particulate filter with minimal evaporation. This includes any of a large class of substances which are viscous, combustible, liquid at ordinary temperatures, and soluble in ether or alcohol but not in water. Some examples of oil-type products or products that contain oil are: mineral oils (e.g., petroleum/hydrocarbons lubricating oils), as well as certain adjuvants such as crop oils and surfactants added when a pesticide product is mixed with water or with other pesticides in tank mixes. If an oil is present at any level in the pesticide itself or in the mixture of pesticide with water, solvent, fertilizer, adjuvants, etc. added to the crop, and if a respirator is required (i.e. if the product is in toxicity category I or II for inhalation toxicity), then only an R- or P-series respirator may be used; an N-series respirator may only be used when there is no oil involved. See *PR Notice* 98-9.

Generally, N-series are only used for non-oil based aerosols. R-series may be used for oil based aerosols with a time limitation of 8 hours, and P-series for periods of time longer than 8 hours with considerations of resistance, soiling, or damage. The reviewer should then examine the Directions for Use section of the label for instructions calling for the addition of crop oils, surfactants and other organic substances that may be oils as defined by NIOSH. If the reviewer has any question whether a substance listed in either the CSF or the Directions for Use is actually an oil, this question should be referred to the product chemistry reviewer.

- **(b)** Respirator types for which label language changes are not required at this time. The following are types of respirators which are NOT subject to change per *PR Notice 98-9*:
  - Powered air purifying respirator equipped with a high efficiency particulate air (HEPA) filter (NIOSH approval number prefix TC-21C).

- ▶ Powered air purifying respirator equipped with an organic-vapor (OV) removing cartridge plus a high efficiency (HE) filter (NIOSH approval number prefix TC-23C).
- ▶ Powered air purifying canister-type respirator (gas-mask) equipped with an organic vapor canister that incorporates HE filters (NIOSH approval number prefix TC-14G).

**Table 6. Oil Resistance and Efficiency of Filters** 

| Filter<br>Efficiency | N-series particulate<br>filters<br>Not resistant to oil.  | R-series particulate filters Oil-resistant.  | P-series filters<br>Oil-proof.   |
|----------------------|---|--|--|
| 95%,<br>99%, and     | N95/ N99/ N100<br>Not resistant to oil.   | R95/ R99/ R100<br>Oil-resistant.   | P95/ P99/ P100<br>Oil-proof  |
| 99.97%               | May be used for solid & liquid particulate  | May be used for solid & liquid particulate hazards.  | May be used for solid & liquid particulate hazards.  |
|                      | hazards.  Time limitations: Use and reuse of N-series filters would be subject only to considerations of hygiene, damage and increased breathing resistance. (See manufacturer's recommendations, and the Use Limitation section within PR Notice 98-9 for guidance on determining whether a respirator filter can still function after a particular exposure). | Time limitations: The R-series filters should be used only for a single shift (or for 8 hours of continuous or intermittent use) when oil is present. (See manufacturer's recommendations, and the Use Limitation section within PR Notice 98-9 for guidance on determining whether a respirator filter can still function after a particular exposure). | Time limitations: Use and reuse of the P-series filters would be subject to the manufacturer's recommendation Repeated exposures may degrade the filter below its rated efficiency. (See manufacturer's recommendation and the Use Limitation section within PR Notice 98-9 for guidance on determining whether a respirator filter can still function after a particular exposure). |

**Table 7. Guide to Selecting the Most Protective Handler PPE Level of Protection** 

| Type of PPE                         | Minimum<br>Required                  | Next Highest<br>Level of<br>Protection   | Next Highest<br>Level of<br>Protection  | Highest Level of<br>Protection |
|-------------------------------------|--------------------------------------|--|---|--------------------------------|
| Protective<br>Clothing              | Long-sleeved shirt<br>and long pants | Coveralls over<br>short-sleeved<br>shirt and short<br>pants                        | Coveralls over long-sleeved shirt and long pants  | Chemical<br>Resistant Suit     |
| Protective<br>Footwear              | Socks and Shoes                      | Chemical - resistant footwear  | Chemical-<br>resistant boots  | NA                             |
| Gloves                              | None                                 | Waterproof or<br>Chemical-<br>resistant gloves                                     | NA  | NA                             |
| Protective<br>Headwear              | None                                 | Chemical-<br>resistant<br>headgear   | NA  | NA                             |
| Chemical<br>resistant Apron         | None                                 | Chemical-<br>resistant apron<br>worn over long-<br>sleeved shirt and<br>long pants | Chemical-<br>resistant apron<br>worn over<br>coveralls over<br>long-sleeved shirt<br>and long pants | NA                             |
| Respiratory<br>Protection<br>Device | None                                 | Particulate<br>filtering facepiece<br>respirator <sup>1</sup>                      | Respirator with a vapor removing cartridge or canister with a particulate prefilter <sup>2</sup>    | Air Supplying<br>Respirator    |

<sup>&</sup>lt;sup>1</sup> Can be used only for filtering particulates: it is not adequate if vapor pressure indicates a vapor-removing filter is needed.

- **5. Required Location for Handler PPE.** Handler PPE statements for applicators and other handlers must appear in the PRECAUTIONARY STATEMENTS section of the labeling in the "HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)" section. See *40 CFR 156.212(c)(1)*.
- **6. States May Require the Use of Additional PPE.** The Agency will approve additional state-required language if it is clear that it applies only in that state.

## **B.** Statements for Contaminated PPE

The statements for contaminated PPE must appear in the PRECAUTIONARY STATEMENTS section of the labeling. The preferred location is directly below the Personal Protective Equipment. Remember to check the regulatory assessment document, if one has been completed, for specific User Safety and PPE requirements such as engineering controls. All occupational use products must bear the following statements:

<sup>&</sup>lt;sup>2</sup> Can be used when it is necessary to filter both particulates.

"Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry".

If the product is a concentrate (diluted before use, or is an ultra-low-volume or low-volume concentrate, or contains more than 50% active ingredient) and is in Toxicity Category I or II, its label must include the following statement before the previous statement:

"Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them".

## C. Engineering Controls

Engineering Controls (eg. closed systems, enclosed cabs, lock and load containers) may be required by the regulatory assessment document or by the Acute Toxicity profile of a given product. The following statement should appear on the label in the Precautionary Statement section unless supplemented or superseded by a regulatory assessment document:

"When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS".

1. For Toxicity I and II Products packaged in water soluble package. If a product is in Toxicity Category I or II (signal word Danger or Warning) for either acute dermal toxicity or skin irritation potential, then the following statements shall appear on the label unless supplemented or superseded by a regulatory assessment document:

"Water-soluble packets, when used correctly, qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, shoes, socks, a chemical-resistant apron, and chemical-resistant gloves.

[insert "NOTE" here that would be added to any WSP engineering control statement that specifies the correct use (mixing/loading) procedures that must be followed for a WSP product to be allowed closed system status.]

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down".

2. For Toxicity III and IV Products Packaged in Water Soluble Packages or other similar devices (e.g., gel packs). If a product is in Toxicity Category III or IV for acute dermal toxicity and skin irritation potential, or if either of these data are not available, and signal word is CAUTION, then the following statements may appear on the label unless supplemented or superseded by a regulatory assessment document:

"Water-soluble packets, when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, shoes, and socks instead of listed PPE.

[insert "NOTE" here that would be added to any WSP engineering control statement that specifies the correct use (mixing/loading) procedures that must be followed for a WSP product to be allowed closed system status.]

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down".

## **D.** User Safety Recommendations

If the product falls within the scope of WPS, then a User Safety Recommendations box, as indicated in *PR Notice 93-7, Supplement Three*, must also appear in a separate box on the label containing appropriate user safety information. Many regulatory assessment documents also require User Safety Recommendations for Non-WPS occupational use products. Although the registrant may include any appropriate user safety recommendations on their label, below are some typical statements required by the regulatory assessment documents or found on many products.

# Example of a User Safety Recommendations Box showing sample language:

"User Safety Recommendations"

"Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing".

"Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing".

## VII. Directions for use

For products subject to the WPS, there are four types of worker protection statements that generally appear in the Directions for Use of a label. They are as follows:

- A. Required Statements;
- B. Agricultural Use Requirements Referral Statement for Supplemental Labeling;
- C. Agricultural Use Requirements Statement; and
- D. Statements for Products with both WPS and Non-WPS Uses.

## A. Required Statements

The following statements must appear on all WPS labels near the beginning of the Direction for Use section of the labeling under the heading Agricultural Use Requirements. See the sample at the end of this chapter.

"Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application". (For wide-area treatments, see the additional language presented in section C (2) below 40 CFR 156.206(a).

"For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation". 40 CFR 156.206(d).

## B. Agricultural Use Requirements Referral Statement for Supplemental Labeling

This statement should be used if you put the Agricultural Use Requirements Box in Supplemental Labeling. It must appear on the product label near the statement referring users to the supplemental labeling and must be placed IN A BOX under the heading AGRICULTURAL USE REQUIREMENTS.

"Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to supplemental labeling under "AGRICULTURAL USE REQUIREMENTS" in the DIRECTIONS FOR USE section for information about this standard".

## C. Agricultural Use Requirements Statements

 Required Statements. The following statements must also appear on all labeling for all WPS products. These statements must appear after the heading "Directions for Use" and IN the AGRICULTURAL USE REQUIREMENTS box. See example AGRICULTURAL USE REQUIREMENTS box at the end of this chapter.

"Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170.

"This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label (in this labeling) about (use any of the following that are applicable) personal protective equipment, restricted-entry interval, and notification to workers." 40 CFR 156.206(b)(2).

**2. Restricted Entry Statements.** An REI is the time period immediately following a pesticide application during which entry into the treated area is restricted. REIs can be

determined by referencing Supplement Three-A of *PR Notice 93-7*, the regulatory assessment document or by using the guidelines listed below. If the REI established by the regulatory assessment document is different from the guidance below, the REI established by the regulatory assessment document must be required on the label. Some labels may have several different REIs for different crops. The label must include the following statement under the "AGRICULTURAL USE REQUIREMENTS" heading (40 CFR 156.208(a)):

"Do not enter or allow worker entry into treated areas during the restrictedentry interval (REI) (include single REI here, see below for multiple REIs)".

- (a) Single REI: If a product has only one REI, then the REI shall appear as a continuation of the above required sentence in one of the following formats:
  - "of X hours"; "of X days" or "until the acceptable exposure level of X ppm or mg/m3 is reached." 40 CFR 156.208(b)(1).
- **(b) Crop- or use-specific REI(s):** If different REI's exist for crops or uses, then the REI must appear in the directions for use for that crop or use. The REI must be immediately preceded or followed by the word "*Restricted Entry Interval*" or the letters "*REI*". 40 CFR 156.208(b)(2).
- (c) 72-hr REI for organophosphorous ester in arid areas: If the active ingredient is an organophosphorous ester that may be applied outdoors in an area where the average annual rainfall for the application site is less than 25 inches per year, the following statement shall be added to the restricted-entry statement: 72 hours in outdoor areas where average annual rainfall is less than 25 inches a year.

  40 CFR 156.208(c)(2).
- **3. Early Entry PPE.** All products subject to the WPS should bear the following statements for workers who reenter the treated area prior to the expiration of the restricted entry interval:

"For early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear:"

- (a) Start with the Handler PPE;
- (b) Omit any respiratory protective devices;
- (c) If the handler body clothing requirement is a long-sleeved shirt and long pants, then the early-entry worker requirement shall be "coveralls", and
- (d) If there is no hander requirement for gloves, then the early-entry requirement shall be "chemical resistant gloves (made of any waterproof material)".

- **4. Notification-to-Workers Statements.** Notification to workers statement is required if the product meets the criteria below:
  - (a) **Fumigants**: Fumigants that are registered for use in greenhouses or whose labeling allows use in greenhouses must bear the following statement:
    - "For greenhouse applications, notify workers of the application by warning them orally and by posting warning signs outside all entrances to the greenhouse".
  - (b) **All Other Products**: Products which contain any active ingredient classified as toxicity category I based either on acute dermal toxicity data, skin irritation data, or the criteria below shall bear the following notification statement:
    - "Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas".

## To identify the toxicity category follow the steps below:

- **Step 1:** Examine available data for toxicity category determination. Since acute dermal and skin irritation data may not always be available, use the following list in selecting which data/signal word should be used for determining the acute toxicity category:
  - a. Consider acute dermal and skin irritation data for all active ingredients (a.i.(s)) in the product;
  - b. If acute dermal data are missing for any a.i., consider acute oral data for that a.i. in addition to the primary skin irritation data on the a.i.
  - c. If acute oral and acute dermal data are missing for any a.i., consider the skin irritation data on the a.i.;
  - d. If the acute oral, acute dermal, and skin irritation data are missing for any a.i., consider the signal word of the registered manufacturing use product for the a.i.:
  - e. If none of the above data is available for any a.i. in the product, consider the signal word of the end-use product.
- **Step 2:** If any data used in Step 1, items a-e are toxicity category I or otherwise require use of the equivalent signal word of "DANGER", then a notification statement is required.
- (c) Location of Statement. All notification statements must be located in the DIRECTIONS FOR USE section in the box with the heading AGRICULTURAL USE REQUIREMENTS. If notification is not required (because the product meet the toxicity criteria or is not a fumigant), the reviewer should make sure that the statement about notification to workers is not included in the Agricultural Use Requirements box.

### D. Statements for Products with both WPS and Non-WPS Uses

If the label contains only uses within the scope of the WPS, skip this section. If the label contains or the regulatory assessment document requires entry restrictions, notification requirements, or other instructions similar to WPS requirements that apply to uses NOT within the scope of the WPS (non-agricultural uses), there should be a second box on the label called: Non-Agricultural Use Requirements.

This box may be placed anywhere in the Directions for Use section of the label after the Agricultural Use Requirements box and must contain the following statements (*PR Notice 93-7, Supplement 3*):

"Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses".

In addition, place into the Non-Agricultural Use Requirements box all the entry restrictions, notification requirements, or other statements and instructions (except personal protective equipment requirements) that apply to the non-WPS uses on the label. Examples: "Keep children and pets out of the treated area until sprays have dried"; or, "Keep unprotected persons out of treated areas until sprays have dried".

## **VIII. Determining the correct REI**

The correct REI may be specified in the regulatory assessment document. If a regulatory assessment document is not available, refer to Supplement Three-A of *PR Notice 93-7*, or use the following guidance to determine the correct REI.

### A. REI(s) For Fumigants

Current REI(s) will be retained or at the time of registration, an REI will be determined on a case-by-case basis.

### B. REI(s) Determined by Subdivision D Data

REI(s) will be retained.

### C. All Other REI(s).

Follow the steps below to determine the correct REI(s).

**Step 1: Identify Acute Toxicity Data to Be Used in Determining REI(s).** REI(s) are based on the most severe acute toxicity category assigned to the acute dermal, eye irritation and skin irritation data for all of the active ingredients (a.i.) in a product. In many instances, these data are not always available. The following list indicates the preferred order for selecting data on which to determine the toxicity category for each a.i.:

- 1. Use the acute dermal, eye irritation and skin irritation data for the technical product for each active ingredient;
- 2. Use the acute oral and eye irritation and/or skin irritation data for any active ingredient missing acute dermal data;
- 3. Use the eye irritation and/or skin irritation data for any active ingredient missing the acute oral and acute dermal data;
- 4. Use the signal word of the registered manufacturing use product that is the source of the active ingredient which does not have any acute oral, acute dermal, eye irritation, or skin irritation data;\*
- 5. Use the signal word of the product under review if none of the above data is available on the active ingredient and if the active ingredient without data is not a registered manufacturing use product.\*

The following chart provides examples of how the acute toxicity category is determined for purposes of determining the REI.

**Table 8. Determining Acute Toxicity Category for REI Purposes** 

| Product A   | Variable Acute Tox Data for<br>Each Active Ingredient          | Tox Cat. | Tox Cat. Used to<br>Determine REI |
|-------------|--|----------|-----------------------------------|
| single a.i. | Acute dermal tox data Eye irritation data                      |          | 1                                 |
| Product B   | Available Acute Tox Data for<br>Each Active Ingredient         | Tox Cat. | Tox Cat. Used to<br>Determine REI |
| a.i. #1     | Acute dermal tox data Eye irritation data Skin irritation data |          | II                                |
| a.i. #2     | Acute oral tox data  | III      | III                               |
| a.i. #3     | Signal word of registered MP (source of a.i.)                  | I        | l <sup>2</sup>                    |

<sup>&</sup>lt;sup>1</sup> The appropriate REI for Product A would be 24 hours.

<sup>&</sup>lt;sup>2</sup> The appropriate REI for Product B would be 48 hours.

Step 2: Determine appropriate REI(s) using the chart below and note exceptions:

Table 9. Determining the REI (See 156.208)

| Most Severe Tox Category Usedto Determine the REI  | Length of Required REI |
|--|------------------------|
| When the most severe tox category is III or IV   | The REI is 12 hours    |
| When the most severe tox category is II  | The REI is 24 hours    |
| When the most severe tox category is I   | The REI is 48 hours    |
| In addition: If the product is an organophosphate ester that inhibits cholinesterase and may be applied outdoors in an area where the average rainfall for the application site is less than 25 inches per year. | The REI is 72 hours    |

## **Exceptions:**

- 1. If any existing interim REI, established prior to 10/20/1992, is longer than the REI(s) shown in the table above, the existing interim REI should be retained.
- 2. If a product bears REI(s) for uses not subject to the WPS, those REI(s) should be retained and included in the "Non-Agricultural Use Requirements" box. If multiple REI's exist, follow instructions for multiple REI's below.
- 3. If a product is reduced risk, the REI may be 4 Hours. To qualify for a reduction in the REI to 4 hours products must meet the following criteria:
  - (a) The active ingredient is in Toxicity Category III or IV based upon data for acute dermal toxicity, acute inhalation toxicity, primary skin irritation, and primary eye irritation. Acute oral toxicity data are used if no acute dermal data are available. If EPA lacks data on primary skin irritation, acute inhalation, or primary eye irritation of the active ingredient, the Agency can review data on that end-point for similar active ingredients (analogs), as long as it excludes such active ingredients from consideration for the reduced REI, if the analog is in Toxicity Category I or II for that endpoint.
  - (b) The active ingredient is not a dermal sensitizer (or in the case of biochemical and microbial active ingredients, no known reports of hypersensitivity exist).
  - (c) The active ingredient is not a cholinesterase inhibitor (N-methyl carbamate and organophosphate) as these chemicals are known to cause large numbers of pesticide poisonings and have the potential for serious neurological effects.
  - (d) No known reproductive, developmental, carcinogenic, or neurotoxic effects have been associated with the active ingredient. If the active ingredient does not have data available for these chronic health effects, EPA considers data on appropriate chemical and biological analogs. Active ingredients that have been classified as carcinogenic in Group B (probable human carcinogen) or Group C (possible human

carcinogen) chemicals for which quantification of potential risk (Q1\*) is appropriate, as well as those scheduled for the Health Effects Division's Cancer Peer Review process, are omitted from consideration.

- (e) EPA does not possess incident information (illness or injury reports) that are "definitely" or "probably" related to post-application exposures to the active ingredient.
- (f) The active ingredient has not been the subject of a Reregistration Eligibility Decision (RED) document or other risk assessment which concluded that a longer REI was necessary to protect workers. Active ingredients with REIs established during reregistration activities are NOT eligible for reduced REIs.
- 4. It should also be noted that WPS does not apply to pheromones used in insect traps.

# IX. Labeling statements for special situations

**A.** Chemigation Statement (from *PR Notice 93-7*, Supplement 3, page 39)

Does the current labeling for an end-use product contain instructions for posting a warning sign about chemigation?

**NO:** No action is necessary.

**YES:** Find those statements in your revised labeling and add the following statement:

"This sign is in addition to any sign posted to comply with the Worker Protection Standard".

**B.** Soil Incorporation/Injection (from *PR Notice 93-7*, Supplement 3, page 39)

Does the current labeling for an end-use product contain instructions for incorporating or injecting the product into the soil or planting medium?

**NO:** No action is necessary.

**YES:** Include the following statement in the Agricultural Use Requirements box under Item 4 which gives the restricted entry interval instructions:

"Exception: if the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated".

C. Engineering Control Statements (from *PR Notice 93-7*, Supplement 3, page 50)

If the current product labeling or risk assessment does not contain any requirements or recommendations for the use of closed systems, enclosed cabs, or open or enclosed cockpits, then the following paragraph may be added to the labeling:

"When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS".

- 1. To add this statement to your labeling, include it in the Precautionary Statements section of the label under the heading "Engineering Controls".
- **D.** ULV and LV Uses (from *PR Notice 93-7*, Supplement 3, page 40)

If the product contains directions for use as a ULV or LV concentrate, do the following:

- 1. If the product does not have any PPE requirements, do nothing.
- 2. If the product does have PPE requirements and the product contains directions for use ONLY as a concentrate, do the following:

In the Precautionary Statements section, change the standard heading of "Mixers and Loaders must wear:" to:

"Mixers, loaders, applicators, and other handlers who may be exposed to the concentrate must wear:" This heading will also replace the standard heading "Applicators and other handlers (other than mixers and loaders) must wear:"

- 3. If the product does have PPE requirements but does not contain directions for use solely as a concentrate, do the following:
  - (a) In the Precautionary Statements section, change the standard heading of:
    "Applicators and other handlers (other than mixers and loaders) must wear:" to
    "Handlers who may be exposed to the dilute through application or other tasks must wear:" AND
  - (b) Change the standard heading "Mixers and Loaders must wear:" to "Handlers who may be exposed to the concentrate through mixing, loading, application, or other tasks must wear:"

# X. Sample agricultural use requirements box

## **Directions for use**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirement specific to your State and Tribe, consult the State/Tribal agency responsible for pesticide regulation.

## **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this `label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of\_\_\_hours. The REI is 72 hours in outdoor areas where average annual rainfall is less than 25 inches a year.

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water), is:

- coveralls over long-sleeved shirt and long pants
- chemical-resistant gloves
- chemical-resistant footwear plus socks
- protective eyewear
- chemical-resistant headgear

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

## **APPENDIX A. Summary Table of the Scope of WPS**

| CRITERIA   | Subject to WPS? |
|--|-----------------|
| Product is a manufacturing use product, or an unregistered pesticide used under an experimental use permit issued under <i>FIFRA section 5</i> , or under an exemption issued under <i>FIFRA section 18</i> .  | NO              |
| Product bears directions for use on an agricultural establishment or involving the production of an agricultural plant (defined at 40 CFR 170.3 as any plant grown or maintained for commercial or research purposes and includes, but not limited to, food, feed, and fiber plants; trees; turf grass; flowers, shrubs; ornamentals; and seedlings). Or the product bears labeling that could reasonably permit such a use. | YES             |
| EXCEPTIONS: The use sites below are not subject to WPS   |                 |
| Mosquito abatement, Mediterranean fruit fly eradication, or similar area wide public pest control programs sponsored by governmental entities.   | NO              |
| Use on livestock or other animals, or in or around animal premises.  |                 |
| Plants grown for other than commercial or research purposes, which may include plants in habitations, home fruit and vegetable gardens, and home greenhouses.  |                 |
| Plants that are in ornamental gardens, parks, golf courses, and public or private lawns and grounds, and that are intended only for aesthetic purposes or climatic modification.   |                 |
| Use by injection directly into agricultural plants. Direct injection does not include "hack and squirt", "frill and spray", "chemigation", soil-incorporation, or soil injection.  |                 |
| In a manner not directly related to the production of agricultural plants, including, but not limited to, structural pest control, control of vegetation along rights-of-way and in other non-crop areas, and pasture and rangeland use. Note if the registrant wants to include directions for cutting hay in pastures or rangelands then the product must bear WPS requirements.   |                 |
| Control of vertebrate pests.   |                 |
| Use as attractants or repellents in traps.   |                 |
| Post harvest treatments on the harvested portions of agricultural plants or harvested timbers.   |                 |
| Research uses of unregistered pesticides.  |                 |
| Commercial seed treatment that is only allowed to be conducted off-farm. (e.g. Seed treated at factories that are placed in containers/bags.)  |                 |