

WORKER SAFETY REGULATIONS: ARE YOU READY?

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Parts of the new Worker Protection Standards go into effect 21 April 1993. The compliance date for all other provisions of the WPS will be 15 April 1994. This article will concentrate mainly on those "accelerated provisions," which have a compliance date of 21 April 1993.

The Environmental Protection Agency (EPA) has revised its Worker Protection Standard (WPS) that addresses how farm workers, including greenhouse and nursery employees are to be protected from hazardous exposures to pesticides while on the job. We are currently working under the Worker Protection Standard originally written by EPA in 1974, and these regulations can be found at 40 CFR Part 170. The latest revisions of WPS was proposed in 1988; comments on the regulations were due in January, so we now await the final revision (if any) of the regulations. However, until rulings are made on any exceptions to the regulations, we must be prepared to adhere to the WPS changes as recorded in Vol. 57, No. 163 of the Federal Register on 21 August 1992 (FR 57 38102). This means that as of 21 April 1993 you must comply with: Section (§ = Section) 170.112(a) through (c)(3); § 170.112(d)(1) through (d)(2)(ii); the requirement of § 170.112(c)(3) as referenced in § 170.112(d)(2)(iii); the requirement of § 170.112(c)(3) as referenced in § 170.112(e)(5); § 170.120(a)(3); and § 170.120(b)(3). Is everyone clear on this? Right--can you believe this is the same language that we speak each day?

It is very difficult to condense the legislation into more understandable "sound bytes," and in order to assist reader comprehension of the WPS, we have included the sections discussed in this article (§ 170.110 through § 170.124) in Figure 1. We plan to go over the remaining sections (§ 170.130 through § 170.260) in a later article.

Restrictions Associated with Pesticide Applications

Section 170.110 outlines what areas are restricted to workers during the application of pesticides on farms, in forests, in nurseries, and in greenhouses. We will concentrate only on nurseries and greenhouses.

Table 1 of Figure 1 defines the entry-restricted areas in nurseries during pesticide applications. The treated area is always an entry-restricted area, and workers (other than pesticide handlers who are involved in the application of the pesticide) are never allowed in the area being treated during applications. The range of entry-restriction beyond the area being treated depends on the pesticide formulation applied and the application method employed, as listed in Table 1 of Figure 1.

Entry restrictions during the application of a pesticide in a greenhouse are listed in Table 2 of Figure 1. As in

nurseries, the designated entry-restricted area varies with the type of pesticide applied and the application method used. This table uses the ambiguous term "entire closed area" in column B when describing the entry-restricted area during actual application of a pesticide. If only one subsection (physically divided with an interior wall) is treated, Table 2 could be interpreted as meaning entry is prohibited in the entire greenhouse structure. Hopefully, this is not the case, and the "entire enclosed area" really relates to only the physically partitioned subsection of the greenhouse range that was treated with a pesticide. (*A ruling from EPA on this and other unclear sections is due any day.*)

After a pesticide application is made in a greenhouse, workers still cannot re-enter the entry-restricted area until venting criteria in column C of Table 2 have been met. Probably the most reasonable means of meeting the venting request (except during very cold weather) would be to supply 10 air exchanges; most fan systems are set up to deliver at least one air exchange per minute, so 10 minutes of running your fans should be enough to fulfill requirements listed in column C.

After meeting the venting requirements, the entry-restricted area in which workers are prohibited until the end of the restricted-entry interval (REI) is listed in Column D. Notice that the entry-restricted area during application and after venting can change, depending on the pesticide used and the application technique employed.

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For example, to control two-spotted spider mites, you spray chrysanthemum plants on three benches in a greenhouse section (complete with a door separating the section from the rest of the greenhouse range with Talstar Flowable 8F. This is a Toxicity Class II pesticide that has a "Caution" signal word on the label. The label states that you must wear a respirator during application ("avoid breathing...vapor or spray mist"); you make the application with a backpack pump-up sprayer. Looking at Table 2, this appears to be pesticide application method number (3). During the application, workers are restricted from entering the "entire enclosed area," which should be defined as the physically partitioned subsection, not the entire greenhouse range. After completion of the pesticide application, you (still suited up) turn on the fans and supply the required 10 air exchanges to the greenhouse subsection. After you have ventilated the greenhouse up through the REI defined on the pesticide label, workers are restricted from entering the treated area, which is the three benches of plants you actually sprayed.

Restrictions on Worker Re-entry After Pesticide Applications

Section 170.112(a)-(c)(3) deals with entry restrictions for workers after the application of any pesticide (this includes plant growth regulators such as B-Nine and Cycocel) on an agricultural establishment such as a nursery or in a greenhouse. Paragraph (a) of § 170.112 outlines the general restrictions that prohibit workers in areas where they may be exposed to pesticides after application. The entry-restricted area for the nursery (after the application is completed until the end of any REI specified on the pesticide label) is the treated area. As mentioned above, the entry-restricted area in a greenhouse during any REI is listed in column D of Table 2.

This may be a good place to discuss where the REI (if any) is to be found. The EPA has proposed required changes for pesticide labeling. (*These changes are outlined in 40 CFR § 156, if you are up to reading more regulations....*). Companies will start selling products with the revised labels this month (April, 1993). The restricted-entry intervals (REI) will be part of the newly required label information. Supposedly, the REI duration is based on the toxicity of the active ingredient of the pesticide, but this assumption breaks down with the lower toxicity materials. All pesticides containing an active ingredient in Toxicity Category I (highly toxic) must have a 48 hour REI. Some example pesticides in Category I are Dibrom (naled), Guthion (azinphosmethyl; labeled for use in nurseries), Oxamyl 10G (oxamyl).. Plantfume 103 (sulfotepp), and Vydate 24L (oxamyl). So, if you use Plantfume 103 for whitefly control on your poinsettias next fall, no workers are to be allowed in the treated area until two days after application (without proper personal protective equipment (PPE) and then only when allowed as defined in § 170.112). Pesticides containing an active ingredient in Toxicity Category II require 24 hour REI. Some example Class II pesticides are Diquat, Ficam (bendiocarb, Lindane, Mavrik (fluvalinate), Pageant DF

(chlorphrifos), Talstar (bifenthrin), Tame (fenpropathrin), and Tempo 2 (cyfluthrin). A 12-hour REI has been imposed on all other products. The 12-hour REI category is somewhat irrational. This category contains pesticides containing active ingredients in Toxicity Category III, such as Orthene (acephate) and Malathion as well as Toxicity Category IV pesticides, such as Margosan-O (azadirachtin) and Subdue (metalaxyl). The 12-hour REI also applies to pesticides that are void to toxic ingredients, such M-Pede and DeMoss (pesticidal soaps). EPA must assume that the risk of exposure to a Toxicity Category III pesticide, a Toxicity Category IV pesticide, and soap is identical....

There are exceptions to REI's and they are outlined in § 170.112(b)-(e). Below is an interesting scenario that needs clarification; perhaps it would fall into the REI "exception for activities with no contract" category that is described in § 170.112(b): A grower is injecting Agribrom into the water line for the evaporative pads of a greenhouse and/or directly into the irrigation water line of the greenhouse. This injection is continuous, or at least occurs daily. Agribrom contains a Toxicity Category III active ingredient. EPA could interpret this situation to require 12-hour REI after each use of the Agribrom-treated water. Given a strict interpretation of the WPS regulations, workers could never enter this greenhouse without PPE, unless the employer could prove that a worker entering the greenhouse will have no contact with anything treated with the brominated water and that the Agribrom concentration in the air is below the inhalation exposure level listed in the labeling of the product.

Section 170.112(c) outlines circumstances that would allow for early re-entry during a REI. There are nine major requirements that must be met for this exception to be applicable. The first requirement is that the worker cannot perform any hand labor (any task that would cause the worker to come in contact with a pesticide-treated surface, such as plants and soil); the second restricts the time in the treated areas under a REI for any worker to one hour in any 24-hour period. Perhaps the only reason to read the other seven requirements that follow these two is to gain a better understanding of personal protective equipment (PPE) standards, PPE maintenance requirements, and PPE handling requirements. Speaking of PPE, EPA and the Cooperative Extension Service have already printed an excellent series of pamphlets on personal protective equipment. The guides are entitled "Coveralls, Gloves, and Other Skin Protection," "Clothing Layers for Added Protection," "Choosing Chemical-Resistant PPE," "Protective Eyewear," "Respirators," "Inspecting, Maintaining, and Replacing PPE," and "Avoiding Heat Stress." Contact your local Cooperative Extension Center, or contact your state's pesticide education coordinator to receive copies of these pamphlets.

Section 170.112(d) describes circumstances that would allow for early re-entry during a REI in case of an agricultural emergency. Note that PPE requirements must still be met if early re-entry takes place because of an agricultural emergency.

Section 170.112(e) outlines the procedures leading up to Agency approval of a special case exception for REI requirements. (*There is currently an exception that would allow early entry for hand labor tasks on cut flowers and cut ferns being considered by EPA. Also organizations such as PPGA have submitted comments to EPA requesting clarification of portions of 40 CFR ¶ 170 and ¶ 156. The outcome of these comments may affect EPA's final ruling.*)

Requirements for Notification of Pesticide Applications

Section 170.120 contains requirements for giving workers notification of pesticide applications. Paragraph (a) of this section gives specifics for greenhouses and paragraph (b) has specifics for farm, nursery, and forest application notification. All agricultural notices of pesticide application must conform to the warning sign information given in paragraph (c) of ¶ 170.120. The example sign printed conforms to all warning sign requirements except the minimum size requirement and the red foreground color requirement. The sign is approximately 1/2 the 14 inch X 16 inch minimum dimensions requirement. Parts (3) and (4) of ¶ 170.120(c) describe where signs must be placed in nurseries and greenhouses prior to and during pesticide applications. Parts (5), (6), and (7) give further information as to the timing of sign posting.

Employers must follow the "oral warning" procedures outlined in paragraph (d) of ¶ 170.120, if the pesticide product labeling has a statement requiring both the posting of treated areas and oral notification to workers.

Section 170.122 delineates what additional information must be posted regarding each pesticide application made on the job site. This "pesticide information poster" must contain: (1) the location and description of the treated area; (2) the product name, EPA registration number, and active ingredient(s) of the pesticide; (3) the time and date the pesticide is to be/was applied; (4) the REI for the pesticide. This information must be posted before the application takes place, and the information must stay posted for 30 days after the end of the REI, or 30 days after the end of the application, if no REI is required by the pesticide product label.

We are almost finished with this installment of WPS. The final section in Figure 1, ¶ 170.124, states that if you hire an

outside pesticide applicator to come make a pesticide application at your business, you must inform the applicator of any site/sites on your premises that is/are under a REI.

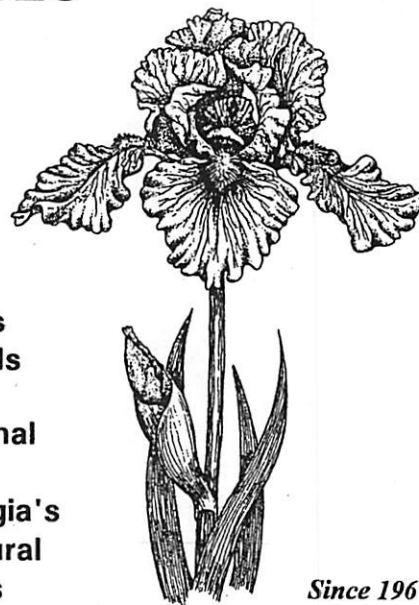
Although I hope this article was easier to read than it was to write, I truly doubt that is the case. The WPS regulations are too specific to allow for a cursory epitome. Take time to read over the actual regulations printed in Figure 1. Familiarize yourself with entry-restriction zones that must be in place during and after a pesticide application. Although some of these regulations are going into effect this month, no enforcement/compliance can take place until REI and PPE information appears on product labels or April 15, 1994, whichever comes first. It isn't too early to start preparing pesticide application notification signs. The one shown could be blown up to 14 X 16 inches, duplicated with red ink, and meet the EPA sign requirements. You should acquaint yourself with PPE requirements both for pesticide handlers and for workers during early re-entry; getting the pamphlets mentioned above would be a good start. Next time, we will finish up with the pesticide safety training, decontamination facility, emergency assistance information, and pesticide handler's standard requirements of 40 CFR ¶ 170.d

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§ 170.110 Restrictions associated with pesticide applications.

(a) *Farms and forests.* During the application of any pesticide on a farm or in a forest, the agricultural employer shall not allow or direct any person, other than an appropriately trained and equipped handler, to enter or to remain in the treated area.

(b) *Nurseries.* In a nursery, during any pesticide application described in column A of Table 1 of this paragraph, the agricultural employer shall not allow or direct any person, other than an appropriately trained and equipped handler, to enter or to remain in the area specified in column B of Table 1 of this paragraph. After the application is completed, until the end of any restricted-entry interval (REI), the entry-restricted area is the treated area.

Table 1. Entry-Restricted Areas in Nurseries During Pesticide Applications.

A. During Application of a Pesticide:	B. Workers are Prohibited in:
<p>(1) That is:</p> <p>(a) Applied:</p> <ul style="list-style-type: none"> (i) Aerially, or (ii) In an upward direction, or (iii) Using a spray pressure greater than 150 psi, or <p>(b) Applied as a:</p> <ul style="list-style-type: none"> (i) Fumigant, or (ii) Smoke, or (iii) Mist, or (iv) Fog, or (v) Aerosol. 	<p>Treated area plus 100 feet in all directions on the nursery.</p>
<p>(2) Or that is:</p> <p>(a) Applied downward using:</p> <ul style="list-style-type: none"> (i) A height of greater than 12 inches from the planting medium, or (ii) A fine spray, or (iii) A spray pressure greater than 40 psi and less than 150 psi. <p>(b) Not applied as described in 1 or 2(a) but for which a respiratory protection device is required for application by the product labeling.</p>	<p>Treated area plus 25 feet in all directions on the nursery.</p>
<p>(3) Applied otherwise.</p>	<p>Treated area.</p>

(c) *Greenhouses.*

(1) When a pesticide application described in column A of Table 2 under paragraph (c)(4) of this section takes place in a greenhouse, the agricultural employer shall not allow or direct any person, other than an appropriately trained and equipped handler, to enter or to remain in the area specified in column B of Table 2 until the time specified in column C of Table 2 has expired.

(2) After the time specified in column C of Table 2 under paragraph (c)(4) of this section has expired, until the expiration of any REI, the agricultural employer shall not allow or direct any worker to enter or to remain in the treated area as specified in column D of Table 2 under paragraph (c)(4) of this section, except as provided in § 170.112.

(3) When column C of Table 2 under paragraph (c)(4) of this section specifies that ventilation criteria must be met, ventilation shall continue until the air concentration

is measured to be equal to or less than the inhalation exposure level the labeling requires to be achieved. If no inhalation exposure level is listed on the labeling, ventilation shall continue until after:

- (i) Ten air exchanges are completed; or
- (ii) Two hours of ventilation using fans or other mechanical ventilating systems; or
- (iii) Four hours of ventilation using vents, windows or other passive ventilation; or
- (iv) Eleven hours with no ventilation followed by 1 hour of mechanical ventilation; or
- (v) Eleven hours with no ventilation followed by 2 hours of passive ventilation; or
- (vi) Twenty-four hours with no ventilation.

(4) The following Table 2 applies to paragraphs (c)(1), (2), and (3) of this section.

Table 2. Greenhouse Entry Restrictions Associated With Pesticide Applications.

A. When a Pesticide is Applied:	B. Workers are Prohibited in:	C. Until:	D. After the Expiration of Time in Column C Until the REI Expires, the Entry-Restricted Area is:
(1) As a fumigant	Entire greenhouse plus any adjacent structure that cannot be sealed off from the treated area.	The ventilation criteria of paragraph (c)(3) of §170.110 are met.	None--no entry restrictions after criteria in column C are met.
(2) As a (i) Smoke, or (ii) Mist, or (iii) Fog, or (iv) Aerosol	Entire enclosed area.	The ventilation criteria of paragraph (c)(3) of §170.110 are met.	Entire closed area.
(3) Not in 1 or 2 above, and for which a respiratory protection device is required for application by the product labeling	Entire enclosed area.	The ventilation criteria of paragraph (c)(3) of §170.110 are met.	Treated area.
(4) Not in 1, 2, or 3 above, and: (i) From a height of greater than 12 in. from the planting medium, or (ii) As a fine spray, or (iii) Using a spray pressure greater than 40 psi	Treated area plus 25 feet in all directions in the enclosed area.	Application is complete.	Treated area.
(5) Otherwise	Treated area.	Application is complete.	Treated area.

§ 170.112 Entry restrictions.

(a) General restrictions.

(1) After the application of any pesticide on an agricultural establishment, the agricultural employer shall not allow or direct any worker to enter or to remain in the treated area before the restricted-entry interval (REI) specified on the pesticide labeling has expired, except as provided in this section.

(2) Entry-restricted areas in greenhouses are specified in column D in Table 2 under § 170.110(c)(4).

(3) When two or more pesticides are applied at the same time, the REI shall be the longest of the applicable intervals.

(4) The agricultural employer shall assure that any worker who enters a treated area under a REI as permitted by paragraphs (c), (d), and (e) of this section uses the personal protective equipment (PPE) specified in the product labeling for early-entry workers and follows any other requirements on the pesticide labeling regarding early entry.

(b) *Exception for activities with no contact.* A worker may enter a treated area during a REI if the agricultural

employer assures that both of the following are met:

(1) The worker will have no contact with anything that has been treated with the pesticide to which the REI applies, including, but not limited to, soil, water, air, or surfaces of plants; and

(2) No such entry is allowed until any inhalation exposure level listed in the labeling has been reached or any ventilation criteria established by § 170.110(c)(3) or in the labeling have been met.

(c) *Exception for short-term activities.* A worker may enter a treated area during a REI for short-term activities if the agricultural employer assures that the following requirements are met:

(1) No hand labor activity is performed.

(2) The time in treated areas under a REI for any worker does not exceed 1 hour in any 24-hour period.

(3) No such entry is allowed for the first 4 hours following the end of the application, and no such entry is allowed thereafter until any inhalation exposure level listed in the labeling has been reached or any ventilation criteria established by § 170.110(c)(3) or in the labeling have been met.

(4) The personal protective equipment (PPE) specified on the product labeling for early entry is provided to the worker. Such PPE shall conform to the following standards:

(i) Personal protective equipment (PPE) means devices and apparel that are worn to protect the body from contact with pesticides or pesticide residues, including, but not limited to, coveralls, chemical-resistant gloves, chemical-resistant footwear, respiratory protection devices, chemical-resistant headgear, and protective eyewear.

(ii) Long-sleeved shirts, short-sleeved shirts, long pants, short pants, shoes, socks, and other items of work clothing are not considered PPE for the purposes of this section and are not subject to the requirements of this section, although pesticide labeling may require that such work clothing be worn during some activities.

(iii) When "chemical-resistant" PPE is specified by the product labeling, it shall be made of material that allows no measurable movement of the pesticide being used through the material during use.

(iv) When "waterproof" PPE is specified by the product labeling, it shall be made of material that allows no measurable movement of water or aqueous solutions through the material during use.

(v) When a "chemical-resistant suit" is specified by the product labeling, it shall be a loose-fitting, one- or two-piece, chemical-resistant garment that covers, at a minimum, the entire body except head, hands, and feet.

(vi) When "coveralls" are specified by the product labeling, they shall be a loose-fitting one- or two-piece garment, such as a cotton or cotton and polyester coverall, that covers, at a minimum, the entire body except head, hands, and feet. The pesticide product labeling may specify that the coveralls be worn over a layer of clothing. If a chemical-resistant suit is substituted for coveralls, it need not be worn over a layer of clothing.

(vii) Gloves shall be of the type specified by the product labeling. Gloves or glove linings made of leather, cotton, or other absorbent materials must not be worn for early-entry activities unless these materials are listed on the product labeling as acceptable for such use. If chemical-resistant gloves with sufficient durability and suppleness are not obtainable for tasks with roses or other plants with sharp thorns, leather gloves may be worn over chemical-resistant liners. However, once leather gloves have been worn for this use, thereafter they shall be worn only with chemical-resistant liners and they shall not be worn for any other use.

(viii) When "chemical-resistant footwear" is specified by the product labeling, it shall be one of the following types of footwear: chemical-resistant shoes, chemical-resistant boots, or chemical-resistant shoe coverings worn over shoes or boots. If chemical-resistant footwear with sufficient durability and a tread appropriate for wear in rough terrain is not obtainable for workers, then leather boots may be worn in such terrain.

(ix) When "protective eyewear" is specified by the product labeling, it shall be one of the following types of

eyewear: goggles; face shield; safety glasses with front, brow, and temple protection; or a full-face respirator.

(x) When "chemical-resistant headgear" is specified by the product labeling, it shall be either a chemical-resistant hood or chemical-resistant hat with a wide brim.

(5) The agricultural employer shall assure that the worker, before entering the treated area, either has read the product labeling or has been informed, in a manner that the worker can understand, of all labeling requirements related to human hazards or precautions, first aid, symptoms of poisoning, personal protective equipment specified for early entry, and any other labeling requirements related to safe use.

(6) The agricultural employer shall assure that:

(i) Workers wear the PPE correctly for its intended purpose and use PPE according to manufacturer's instructions.

(ii) Before each day of use, all PPE is inspected for leaks, holes, tears, or worn places, and any damaged equipment is repaired or discarded.

(iii) Personal protective equipment (PPE) that cannot be cleaned properly is disposed of in accordance with any applicable Federal, State, and local regulations.

(iv) All PPE is cleaned according to manufacturer's instructions or pesticide product labeling instructions before each day of reuse. In the absence of any such instructions, it shall be washed thoroughly in detergent and hot water.

(v) Before being stored, all clean PPE is dried thoroughly or is put in a well-ventilated place to dry.

(vi) Personal protective equipment contaminated with pesticides is kept separately and washed separately from any other clothing or laundry.

(vii) Any person who cleans or launders PPE is informed that such equipment may be contaminated with pesticides, or the potentially harmful effects of exposure to pesticides, and of the correct way(s) to handle and clean PPE and to protect themselves when handling equipment contaminated with pesticides.

(viii) All clean PPE is stored separately from personal clothing and apart from pesticide-contaminated areas.

(ix) Each worker is instructed how to put on, use, and remove the PPE and is informed about the importance of washing thoroughly after removing PPE.

(x) Each worker is instructed in the prevention, recognition, and first aid treatment of heat-related illness.

(xi) Workers have a clean place(s) away from pesticide-storage and pesticide-use areas for storing personal clothing not in use; putting on PPE at the start of any exposure period; and removing PPE at the end of any exposure period.

(7) When PPE is required by the labeling of any pesticide for early entry, the agricultural employer shall assure that no worker is allowed or directed to perform the early-entry activity without implementing, when appropriate, measures to prevent heat-related illness.

(8) During any early-entry activity, the agricultural employer shall provide a decontamination site in accordance with § 170.150.

(9) The agricultural employer shall not allow or direct any worker to wear home or to take home PPE contaminated with pesticides.

(d) *Exception for an agricultural emergency.*

(1) An "agricultural emergency" means a sudden occurrence or set of circumstances which the agricultural employer could not have anticipated and over which the agricultural employer has no control and which requires entry into a treated area during a REI when no alternative practices would prevent or mitigate a substantial economic loss. A substantial economic loss means a loss in profitability greater than that which would be expected based on the experience and fluctuations of crop yields in previous years. Only losses caused by the agricultural emergency specific to the affected site and geographic area are considered. The contribution of mismanagement cannot be considered in determining the loss.

(2) A worker may enter a treated area under a REI in an agricultural emergency to perform tasks, including hand labor tasks, necessary to mitigate the effects of the agricultural emergency, if the agricultural employer assures that all the following criteria are met:

(i) A State, Tribal, or Federal Agency having jurisdiction declares the existence of circumstances that could cause an agricultural emergency on that agricultural establishment.

(ii) The agricultural employer determines the agricultural establishment is subject to the circumstances declared under paragraph (d)(2)(i) of this section that result in an agricultural emergency meeting the criteria of paragraph (d)(1) of this section.

(iii) The requirements of paragraphs (c)(3) through (9) of this section are met.

(e) *Exception requiring Agency approval.* The Agency may, in accordance with paragraphs (e)(1) through (3) of this section, grant an exception from the requirements of this section. An exception may be withdrawn in accordance with paragraph (e)(6) of this section.

(1) *Requesting an exception.* A request for an exception must be submitted to the Director, Office of Pesticide Programs (H-7501C), Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 and must be accompanied by two copies of the following information:

(i) The name, address, and telephone number of the submitter.

(ii) The time period for which the exception is requested.

(iii) A description of the crop(s) and specific crop production task(s) for which the exception is requested. Such a description must include an explanation as to the necessity of applying pesticides of a type and at a frequency such that the REI would interfere with necessary and time-sensitive hand labor tasks for the period for which the exception is sought.

(iv) A description of the geographic area for which the exception is requested. If the exception request is for a limited geographic area, the explanation must include a description as to why the circumstances of exposure or economic impact resulting from the prohibition of routine hand labor tasks during the REI are unique to the geographic area named in the exception.

(v) An explanation as to why, for each requested crop-task combination, alternative practices would not be technically or financially viable. Such alternative practices might include: rescheduling the pesticide application or hand labor activity; using a non-chemical pest control alternative; using an alternative to the hand labor tasks, such as machine cultivation; or substituting a pesticide with a shorter REI. This information should include estimates or data on per acre revenue and cost of production for the crop and area for which the exception is requested. These estimates or data should include: the situation prior to implementation of this final rule, the situation after implementation of this final rule if the exception is not granted, the situation after implementation of this final rule if the exception is granted, and specific information on individual factors which cause differences in revenues and costs among the three situations.

(vi) A description or documentation of the safety and feasibility of performing the necessary hand labor activity while wearing the PPE required for early entry for the pesticide(s) expected to be applied, the means of mitigating heat-related illness concerns, the period of time required daily per worker to perform the hand labor activity, any suggested methods of reducing the worker's exposure, and any other mitigating factors, such as the availability of running water for routine and emergency decontamination and mechanical devices that would reduce the workers' contact with the treated surfaces. The information should include the costs associated with early-entry, such as decontamination facilities, special information and training for the workers, heat stress avoidance procedures, and provision, inspection, cleaning, and maintenance of PPE. EPA will not grant exceptions where the costs of early entry equal or exceed the expected loss on value of crop yield or quality.

(2) *Notice of receipt.*

(i) When a request for an exception is submitted to the Agency along with all of the information required in paragraph (e)(1) of this section, the Agency shall issue a notice in the Federal Register stating that an exception is being considered, describing the nature of the exception, and allowing at least 30 days for interested parties to comment.

(ii) If a request for an exception is submitted to the Agency without all of the information required in paragraph (e)(1) of this section, the Agency shall return the request to the submitter.

(3) *Exception decision.* EPA will publish in the Federal Register its decision whether to grant the request for exception. EPA will base its decision on whether the

benefits of the exception outweigh the costs, including the value of the health risks attributable to the exception. If the exception is granted, the notice will state the nature of and reasons for the exception.

(4) Presumptive denial.

(i) Except as provided in paragraph (e)(4)(ii) of this section, persons requesting an exception may assume that the exception has been denied if EPA has not issued its decision whether to grant the exception within 9 months from the comment-closure date specified in the Federal Register notice in which the Agency announced, in accordance with paragraph (e)(2) of this section, that it would consider the exception.

(ii) Persons requesting an exception may not assume that the request has been denied as provided by paragraph (e)(4)(i) of this section if the Agency has taken action to extend its review period for a specified time interval due to the complexity of the exception request or to the number of exception requests concurrently under Agency review. EPA shall state the reason(s) for the delay in issuing a decision on the exception request. A notice of such an action may be published in the Federal Register or persons who requested the exception may be directly notified of the action.

(5) Agricultural employer duties. When a worker enters a treated area during a REI under an exception granted under paragraph (e) of this section, the agricultural employer shall assure that the requirements of paragraphs (c)(3) through (9) of this section are met, unless the notice granting the exception specifically indicates otherwise.

(6) Withdrawing an exception. An exception may be withdrawn by the Agency at any time if the Agency receives poisoning information or other data that indicate the health risks imposed by this early-entry exception are unacceptable or if the Agency receives other information that indicates that the exception is no longer necessary or prudent. If the Agency determines that an exception should be withdrawn, it will publish a notice in the Federal Register, stating the basis for its determination. Affected parties would then have 30 days to request a hearing on the Agency's determination. The exception, however, would be discontinued as of the date specified by EPA in the notice, which may include any of the 30-day period and the time required for any subsequent hearing process. Thereafter the Agency will decide whether to withdraw the exception and will publish a notice in the Federal Register stating its decision.

§ 170.120 Notice of applications.

(a) Notification to workers of pesticide applications in greenhouses. The agricultural employer shall notify workers of any pesticide application in the greenhouse in accordance with this paragraph.

(1) All pesticide applications shall be posted in accordance with paragraph (c) of this section.

(2) If the pesticide product labeling has a statement requiring both the posting of treated areas and oral notification to workers, the agricultural employer shall also

provide oral notification of the application to the worker in accordance with paragraph (d) of this section.

(3) Notice need not be given to a worker if the agricultural employer can assure that one of the following is met:

(i) From the start of the application until the end of the application and during any REI, the worker will not enter, work in, remain in, or pass through the greenhouse; or

(ii) The worker applied (or supervised the application of) the pesticide for which the notice is intended and is aware of all information required by paragraphs (d)(1) through (3) of this section.

(b) Notification to workers on farms, in nurseries, or in forests of pesticide applications. The agricultural employer shall notify workers of any pesticide application on the farm or in the nursery or forest in accordance with this paragraph.

(1) If the pesticide product labeling has a statement requiring both the posting of treated areas and oral notification to workers, the agricultural employer shall post signs in accordance with paragraph (c) of this section and shall provide oral notification of the application to the worker in accordance with paragraph (d) of this section.

(2) For any pesticide other than those for which the labeling requires both posting and oral notification of applications, the agricultural employer shall give notice of the application to the worker either by the posting of warning signs in accordance with paragraph (c) of this section or orally in accordance with paragraph (d) of this section, and shall inform the workers as to which method of notification is in effect.

(3) Notice need not be given to a worker if the agricultural employer can assure that one of the following is met:

(i) From the start of the application until the end of the application and during any REI, the worker will not enter, work in, remain in, or pass through on foot the treated area or any area within 1/4 mile of the treated area; or

(ii) The worker applied (or supervised the application of) the pesticide for which the notice is intended and is aware of all information required by (d)(1) through (3) of this section.

(c) Posted warning signs. The agricultural employer shall post warning signs in accordance with the following criteria:

(1) The warning sign shall have a background color that contrasts with red. The words "DANGER" and "PELIGRO," plus "PESTICIDES" and "PESTICIDAS," shall be at the top of the sign, and the words "KEEP OUT" and "NO ENTRE" shall be at the bottom of the sign. Letters for all words must be clearly legible. A circle containing an upraised hand on the left and a stern face on the right must be near the center of the sign. The inside of the circle must be red, except that the hand and a large portion of the face must be in a shade that contrasts with red. The length of the hand must be at least twice the height of the smallest letters. The length of the face must be only slightly smaller than the

hand. Additional information such as the name of the pesticide and the date of application may appear on the warning sign if it does not detract from the appearance of the sign or change the meaning of the required information. A black-and-white example of a warning sign meeting these requirements, other than the size requirements, follows:

DANGER PELIGRO
PESTICIDES PESTICIDAS



KEEP OUT
NO ENTRE

(2) The sign shall be at least 14 inches by 16 inches in size, and the letters shall be at least 1 inch in height unless a smaller sign and smaller letters are necessary because the treated area is too small to accommodate a sign of this size. If a smaller sign is used, it must meet the proportions and other requirements described in paragraph (c)(1) of this section.

(3) On farms and in forests and nurseries, the signs shall be visible from all usual points of worker entry to the treated area, including at least each access road, each border with any labor camp adjacent to the treated area, and each footpath and other walking route that enters the treated area. When there are no usual points of worker entry, signs shall be posted in the corners of the treated area or in any other location affording maximum visibility.

(4) In greenhouses, the signs shall be posted so they are visible from all usual points of worker entry to the treated area including each aisle or other walking route that enters the treated area. When there are no usual points of worker entry to the treated area, signs shall be posted in the corners of the treated area or in any other location affording maximum visibility.

(5) The signs shall:

(i) Be posted no sooner than 24 hours before the scheduled application of the pesticide.

(ii) Remain posted throughout the application and any REI.

(iii) Be removed within 3 days after the end of the application and any REI and before agricultural-worker entry is permitted, other than entry permitted by § 170.112.

(6) The signs shall remain visible and legible during the time they are posted.

(7) When several contiguous areas are to be treated with pesticides on a rotating or sequential basis, the entire area may be posted. Worker entry, other than permitted by § 170.112 is prohibited for the entire area while the signs are posted.

(d) *Oral warnings.* The agricultural employer shall provide oral warnings to workers in a manner that the worker can understand. If a worker will be on the premises during the application, the warning shall be given before the application takes place. Otherwise, the warning shall be given at the beginning of the worker's first work period during which the application is taking place or the REI interval for the pesticide is in effect. The warning shall consist of:

(1) The location and description of the treated area.

(2) The time during which entry is restricted.

(3) Instructions not to enter the treated area until

the REI has expired.

§ 170.122 Providing specific information about applications.

When workers are on an agricultural establishment and, within the last 30 days, a pesticide covered by this subpart has been applied on the establishment or a REI has been in effect, the agricultural employer shall display, in accordance with this section, specific information about the pesticide.

(a) *Location, accessibility, and legibility.* The information shall be displayed in the location specified for the pesticide safety poster in § 170.135(d) and shall be accessible and legible, as specified in § 170.135(e) and (f).

(b) *Timing.*

(1) If warning signs are posted for the treated area before an application, the specific information for that application shall be posted at the same time or earlier.

(2) The information shall be posted before the application takes place, if workers will be on the establishment during application. Otherwise, the information shall be posted at the beginning of any worker's first work period.

(3) The information shall continue to be displayed for at least 30 days after the end of the REI (or, if there is no REI, for at least 30 days after the end of the application) or at least until workers are no longer on the establishment, whichever is earlier.

(c) *Required information.* The information shall include:

(1) The location and description of the treated area.

(2) The product name, EPA registration number, and active ingredient(s) of the pesticide.

(3) The time and date the pesticide is to be applied.

(4) The REI for the pesticide.

§ 170.124 Notice of applications to handler employers.

Whenever handlers who are employed by a commercial pesticide handling establishment will be performing pesticide handling tasks on an agricultural establishment, the agricultural employer shall provide to the handler employer, or assure that the handler employer is aware of, the following information concerning any areas on the agricultural establishment that the handler may be in (or may walk within 1/4 mile of) and that may be treated with a pesticide or that may be under a REI while the handler will be on the agricultural establishment:

(a) Specific location and description of any such areas; and

(b) Restrictions on entering those areas.



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