Worker Protection Standard

The Worker Protection Standard or “WPS”, is a Federal regulation, promulgated by the Environmental Protection Agency, and enforced by the Minnesota Department of Agriculture. It is intended to protect employees in agricultural settings from the hazards of pesticides. This fact sheet addresses the WPS in general, as well as a major revision issued in 2015. WPS is a complex regulation and this fact sheet is intended to offer summary information only. Always consult an expert for detailed information.

Introduction

While the WPS is several decades old, its current incarnation was created in 1992. It has been amended or revised multiple times, most recently in 2015, with changes taking effect in 2017 and 2018. It can be found in CFR title 40, part 170.

Purpose and objectives

The stated purpose of the WPS is to reduce the risks of illness or injury to “workers” and “handlers” resulting from occupational exposures to pesticides used in the production of agricultural plants on agricultural establishments (i.e. farms, forests, nurseries and enclosed space production facilities, such as greenhouses).

WPS has three major objectives:

- To inform workers and handlers through training, posters, application information, safety data sheets, etc.
- To protect workers and handlers by creating requirements pertaining to Application Exclusion Zones (AEZ’s), early entry requirements, Reentry Intervals (REIs), Personal Protective Equipment, etc.
- To mitigate the effects of exposures by mandating decontamination supplies, coordination of medical services, etc.

Where/When does WPS apply

WPS applies where/when a pesticide whose label references the Worker Protection Standard, is used in the production of “agricultural plants” on an “agricultural establishment”.

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.

Figure 1. Example of a WPS pesticide label.

Note that there are eight exceptions to this scope statement, listed in the regulation.

An “agricultural plant” is defined as “Any plant, or part thereof, grown, maintained, or otherwise produced for commercial purposes, including growing, maintaining, or otherwise producing plants for sale or trade, for research or experimental purposes, or for use in part or their entirety at another location. Agricultural plants
include, but are not limited to grains, fruits, vegetables, wood fiber or timber products, flowering and foliage plants and trees, seedlings and transplants, and turf grass produced for sod. Agricultural plant does not include pasture or rangeland used for grazing.”

An “agricultural establishment” is defined as “any farm, forest operation, or nursery engaged in the outdoor or enclosed space production of agricultural plants. An establishment that is not primarily agricultural is an agricultural establishment if it produces agricultural plants for transplant or use (in part or their entirety) in another location instead of purchasing the agricultural plants”.

“Workers”

WPS recognizes two – and only two – types of employees; “workers”, and “handlers”.

Workers are defined as “any person, including a self-employed person, who is employed and performs activities directly relating to the production of agricultural plants on an agricultural establishment”.

Workers usually perform activities which have a lower probability of serious exposures to pesticides and therefore, have fewer protections under the rule.

“Handlers”

The definition of handler is quite long and complex, but can be summarized as any person who performs any activity such as:

- Mixing, loading or applying pesticides
- Disposing of pesticides
- Handling opened pesticide containers, including emptying, triple rinsing, cleaning, etc.
- Acting as a flagger
- Cleaning, adjusting, handling, repairing, the parts of mixing, loading, or application equipment that may contain residues
- Assisting with applications
- Entering an enclosed space after an application but before certain criteria have been met
- Entering a treated area outdoors after an application of any soil fumigant during an REI
- Performing tasks as a crop advisor.

“Pesticide safety information” (a.k.a. posters)

Employers covered by WPS are required to display specific pesticide safety information to all workers and handlers. Historically, this has been accomplished through a poster produced by EPA and posted by employers wherever pesticide workers and handlers are likely to see it.

As a result of the 2015 revisions to WPS, the required content for this display is being updated and EPA will be releasing a new standard “poster” at some point after January 1, 2018. The revised WPS also clarifies that this display need not be a poster – any format of display is acceptable.
Figure 2. The current standardized EPA pesticide poster. To be revised and re-released by January, 2018.

Pesticide application and hazard information

To ensure that all employees are notified and aware of pesticide applications, employers covered by WPS must make and maintain records of all pesticide applications made on the establishment (except for applications not covered by WPS).

The records must include at least the following:

- Safety Data Sheet for the pesticide(s) applied
- Name, EPA registration number and active ingredients of the pesticide
- Crop or site treated and description of the treated area
- Date(s) and times the application started and ended
- The duration of the labeling-specified Restricted Entry Interval (REI) for the application.

The information must be displayed no later than 24 hours after the end of application and must be continuously displayed until at least 30 days after the end of the REI, or until workers and handlers are no longer on the establishment, whichever is longer. Records must be retained for two years.

Prohibited actions/anti-retaliation

No employer or person is permitted to harass, coerce, threaten or discriminate against any other person in any way in retaliation for taking any type of action against an employer for concerns related to compliance with WPS.

Worker and handler training

Unless they meet certain exceptions, such as being a currently certified Restricted Use Pesticide (RUP) applicator, or being a certified crop advisor, all workers and handlers must receive training at least annually. The 2015 revision to WPS eliminates any mention of grace period for the completion of training.

The 2017 revisions also greatly expanded the content of the required training from 11 topics to 26 for workers, and 13 to 29 for handlers. These expanded content requirements go into effect in January, 2018.

There are also strict requirements for trainer qualifications, such as completing an EPA-approved train-the-trainer program.

All training materials must be EPA-approved and must bear an EPA approval number.
All training must be documented, including workers’/handlers’ names and signatures, date of training, EPA-approval number of the training materials, the trainer’s name and documentation of his/her qualifications, and the employer’s name. Records must be maintained for two years.

Entry restrictions/“Application Exclusion Zones (AEZ)” for workers

The 2015 revisions introduce the concept of entry restrictions for indoor and outdoor applications. Restrictions are different for outdoor vs. indoor applications.

**Outdoor applications.** When outdoor applications are in progress, an “Application Exclusion Zone” or AEZ may be created. An AEZ is the area that extends a specific number of feet, horizontally in all directions, from the point of application. No person, other than properly equipped and trained handlers may enter this zone during an application. Effective January, 2018, a handler must immediately suspend application if unauthorized persons enter the AEZ. The AEZ will be 100 feet for high-hazard applications such as aerial or air blast applications, and 25 feet for lower risk applications. In some low-hazard scenarios, the AEZ is 0 feet.

“**Enclosed space applications**”. Entry restrictions for enclosed space applications are considerably more complicated. They are summarized in the table found in appendix 1 of this fact sheet.

### Oral and posted notification of worker entry restrictions

Employers must notify all workers and handlers of all entry restrictions, by posting signage and/or making oral notifications.

<table>
<thead>
<tr>
<th>If the REI is...</th>
<th>Type of warning</th>
</tr>
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<tbody>
<tr>
<td>Outdoor production</td>
<td>&gt;48 hours</td>
</tr>
<tr>
<td></td>
<td>&lt;=48 hours</td>
</tr>
<tr>
<td>Enclosed space production</td>
<td>&gt;4 hours</td>
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<tr>
<td></td>
<td>&lt;=4 hours</td>
</tr>
</tbody>
</table>

Double notification (verbal and signage) is required when/if the label requires it.

Signage must be at least 14x16 inches in most cases, and there are specific requirements for wording, color, content, etc. No variations are permitted.

**Figure 3.** Example of the mandated signage.
Decontamination supplies for workers and handlers

Workers and handlers must be provided with specific decontamination supplies, to be used in case of exposure.

- Water for emergency flushing of eyes and skin. At least one gallon per worker at start of shift and three gallons per handler.
- Soap and single-use towels

In addition to the above, there are specific requirements for eye flushing supplies for handlers.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Eye flushing requirements</th>
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<tbody>
<tr>
<td>Mixing or loading pesticide whose labeling requires protective eyewear</td>
<td>A system capable of delivering gently running water at the rate of 0.4 GPM for 15 min. or at least six G. of water in containers suitable for providing gentle eye flush for 15 min. Supplies/systems must be at the mix/load site and immediately accessible to employees</td>
</tr>
<tr>
<td>Or Mixing or loading any pesticide using a closed, pressurized system</td>
<td></td>
</tr>
<tr>
<td>Applying pesticides whose labeling requires protective eyewear</td>
<td>At least one pint of water per handler in portable containers that are immediately available to each handler.</td>
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Personal Protective Equipment (inc. Respiratory Protection)

Personal Protective Equipment (PPE) such as gloves, coveralls, eye protection, etc. must be worn as directed by the pesticide label. All required PPE must be provided to the employee by the employer at no charge to the employee. Shirts, pants, shoes, and socks are not considered PPE and do not need to be provided by the employer.

If respirators are worn, employers must comply with OSHA respiratory protection standard (29 CFR 1910.134). That standard requires employees who are required to wear respirators to be trained, medically evaluated, and fit tested. There are also requirements for employees who are not required to wear respirators, but choose to wear them voluntarily.

Early-entry workers

Workers are permitted to enter treated areas before an REI has expired only under a few sets of circumstances. Employees who do this are called “early entry workers”. The 2015 revision introduces a new requirement that these workers must be at least 18 years of age.

The regulation also outlines the four (and only four) scenarios in which early re-entry is permitted, and the conditions that must be satisfied before, during, and after this work.

Effective dates for the 2015 revisions

Nearly all of the requirements under the 2015 revision took effect on January 2, 2017. However, three requirements are delayed until January 2, 2018.

- Expanded content requirements for workers and handlers.
• Requirement for handlers to immediately suspend application when/if unauthorized persons, such as workers, enter an AEZ or restricted area.
• New content requirements for the “pesticide safety information”

Questions

If you have questions on this topic or if you would like to request assistance, please contact University Health and Safety (UHS) at (612)626-6002.
Appendix 1: Entry restrictions for enclosed space applications

<table>
<thead>
<tr>
<th>(A) When pesticide is applied:</th>
<th>(B) Everyone other than handler is prohibited in:</th>
<th>(C) Until</th>
<th>(D) After the time in column C, the area subject to REI is:</th>
</tr>
</thead>
</table>
| (1) Fumigant               | Entire enclosed space plus adjacent structures or areas that can not be sealed off from treatment area | One of the following:  
- 10 air exchanges  
- 2 hours of ventilation w/ fans, or other mechanical systems  
- 4 hours of ventilation w/ vents, windows, other passive system  
- 11 hours of no vent. followed by 1 hr. of mechanical ventilation.  
- 11 hours of no ventilation followed by 2 hours of passive ventilation  
- 24 hours of no ventilation. | No post-application entry restrictions are required after criteria in column C are met. |
| (2) Smoke, fog, mist, or spray (spray quality smaller than “Med.”) | Entire enclosed space | Entire closed space | |
| (3) Not as in (1) or (2), and for which a resp. is required by label | Entire enclosed space | Treated area | |
| (4) Not as in (1), (2), or (3) and from a height of 12” or more or as a spray using spray (spray quality medium or larger) | Treated area plus 25 feet in all directions of the treated space, but not outside the enclosed space | Application is complete | Treated area |
| Otherwise                  | Treated area                  |                  |                     |