

Worker Protection Standard: Application Exclusion Zone (AEZ)¹

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The Worker Protection Standard (WPS) is a Federal regulation designed to protect agricultural workers (people involved in the production of agricultural plants) and pesticide handlers (people mixing, loading, or applying pesticides or doing other tasks involving direct contact with pesticides). It has been in full implementation since 1995. This document provides general guidance to help you comply with the requirements of the Federal Worker Protection Standard (WPS) for agricultural pesticides, 40 CFR part 170, as amended in 2015. This document provides responses to some frequently asked questions about the WPS requirements but does not include all of the information necessary to be in compliance with the WPS, nor does it contain all of the requirements of the WPS. A complete reference for the WPS is provided by “How to Comply with the Worker Protection Standard for Agricultural Pesticides: What Employers Need to Know.” <http://www.epa.gov/sites/production/files/2015-06/documents/epa-735-b-05-002.pdf>.

What is the AEZ?

The “Application Exclusion Zone” or AEZ is a new term used in the WPS rule; it refers to the area surrounding the pesticide application equipment. During pesticide applications, this area must be free of all people other than appropriately trained and equipped handlers.

How is the AEZ measured and the size of the AEZ determined?

The AEZ is measured from the application equipment (Figure 1). The AEZ also moves like a halo around the application equipment. The size of an AEZ varies depending on the type of application and other factors, including droplet size and the height of nozzles above the planting medium. The AEZ is 100 feet for aerial, air blast, fumigant, smoke, mist, and fog applications, as well as spray applications using very fine droplets or fine droplet sizes (a volume median droplet diameter (VMD) size of less than 294 microns). Droplets are measured in microns, or micrometers (µm). One micron is equal to one millionth of a meter—the equivalent of 1/25,400th of an inch. A VMD of 294 µm means that half the volume of spray will be droplets that have a diameter of less than 294 µm, and the other half of the volume of spray will be droplets larger than 294 µm. An AEZ of 25 feet is required when the pesticide is sprayed using droplet sizes of medium or larger VMD and from more than 12 inches above the plant medium. An application that does not fall into one of these categories does not require an AEZ.

1. This document is PI263, one of a series of the Agronomy Department, UF/IFAS Extension. Original publication date August 2016. Visit the EDIS website at <http://edis.ifas.ufl.edu>.

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Figure 1. The AEZ is the purple area around the application equipment. It moves with the application equipment as it proceeds. The AEZ is generally within the treated area, except when the application equipment is near the edges of the treated area. Credits: Frederick Fishel, UF/IFAS

What do I need to do in order to comply with the AEZ?

There are several different requirements regarding the AEZ in the revised WPS. The WPS provision requires the agricultural employer to keep any workers or other people outside the AEZ when within the boundaries of the establishment and until the application is complete.

Pesticide applicator: The provision establishes a requirement for the pesticide applicator to suspend the application if any workers or other people are anywhere in the AEZ. This requirement is NOT limited to the boundaries of the establishment. This applies to any area on or off the establishment within the AEZ while the application is ongoing. Please note that this is one of the WPS provisions that is delayed in implementation until January 2, 2018 to allow time for the applicators to receive training on the new requirement.

Agricultural employer: The requirement for the agricultural employer to keep people out of the AEZ only applies within the boundaries of the establishment because the agricultural employer cannot be expected to control people off the establishment. The “suspend application” provision does apply beyond the boundaries of the establishment because the applicator and employer have control over the pesticide application and are subject to a WPS requirement to apply the pesticide in a way that will not contact workers or other people on or off the establishment. Compliance for agricultural employers is required with this requirement beginning January 2, 2017.

What are the agricultural employer’s responsibilities related to the pesticide applications and the new AEZ requirements, and when does this requirement go into effect?

The agricultural employer has two responsibilities related to the pesticide applications and the new AEZ requirements:

- During any WPS-covered pesticide application, the agricultural employer must keep workers and all other people, other than appropriately trained and equipped handlers involved in the application, out of the treated area and the AEZ within the boundary of the agricultural establishment. This includes people occupying migrant labor camps or other housing or buildings that are located on the agricultural establishment.
- The agricultural employer may not allow a pesticide to be applied while any worker or other person on the establishment is in the treated area or within the AEZ.

If the agricultural employer is also the handler making the pesticide application, he or she must suspend a pesticide application if any worker or other person is within the AEZ beyond the boundary of the agricultural establishment. The requirements related to the AEZ will go into effect January 2, 2017.

Does the agricultural employer have WPS responsibilities related to the new AEZ requirements if workers or other people are off his or her establishment?

The AEZ requirement imposes no responsibilities on an agricultural employer in regard to workers or other people who are not on the agricultural establishment as long as the agricultural employer is not the pesticide applicator. If the agricultural employer is also the handler making the pesticide application, then the provision would require him or her to suspend a pesticide application if any worker or other person is within the AEZ even if they are beyond the boundary of the agricultural establishment.

What are the applicator’s/pesticide handler’s responsibilities related to the pesticide applications and the new AEZ requirements, and when does this requirement go into effect?

Starting January 2, 2018, the handler performing the application must immediately suspend the pesticide application if any worker or other person, other than an appropriately trained and equipped handler involved in the application, is in the AEZ, regardless of whether such people are on or off the establishment.

As noted above, the pesticide handler performing the application must immediately suspend the pesticide application if any worker or other person, other than an appropriately trained and equipped handler involved in the application is in the AEZ, regardless of whether such people are on or off the establishment. When and under what circumstances can a handler resume a pesticide application?

If the AEZ stretches beyond the property of the agricultural establishment being treated, and a worker or other person is in this portion of the AEZ, the applicator must temporarily suspend the application and may not proceed until the applicator can ensure that the pesticide will not contact any people who are in the AEZ area that extends beyond the boundary of the establishment. The agricultural employer may not allow a pesticide to be applied, or a suspended application to be resumed, while any worker or other person on the establishment is in the treated area or within the AEZ. Both the handler employer and the handler are required to ensure that no workers or other people, other than appropriately trained and equipped handlers involved in the application, are ever contacted by a pesticide, either directly or through drift, regardless of whether such people are on or off the establishment or beyond the boundary of the AEZ. Effective dates of this requirement are summarized in Table 1.

Table 1. New AEZ provision required compliance dates.

Role	Effective date
Agricultural employer	January 2, 2017
Pesticide applicator/handler	January 2, 2018

Additional Information

Frederick M. Fishel. 2015. *A Summary of Revisions to the Worker Protection Standard—2015*. PI261. Gainesville: University of Florida Institute of Food and Agricultural Sciences. <http://edis.ifas.ufl.edu/pi261>

US EPA. 2005. *How to Comply with the Worker Protection Standard for Agricultural Pesticides: What Employers Need to Know*. EPA 735-B-05-002. United States Environmental Protection Agency. Revised 2005. <http://www.epa.gov/agriculture/epa-735-b-05-002.pdf>.