



Soil Fumigant Mitigation Factsheet: Emergency Preparedness and Response Requirements

Office of Pesticide Programs (7506P)

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EPA is requiring important new safety measures for soil fumigant pesticides to increase protections for agricultural workers and bystanders -- people who live, work, or otherwise spend time near fields that are fumigated. These measures are for the soil fumigants chloropicrin, dazomet, metam sodium/potassium, and methyl bromide.

This fact sheet summarizes new requirements to protect fumigant handlers and other workers from fumigant exposures. The new Emergency Preparedness and Response requirements are being implemented during the second of two phases. When new Phase 2 fumigant labels appear in the market place in late 2012, fumigant users will need to comply with these new requirements.

New Requirements for Emergency Preparedness and Response

When are Emergency Preparedness and Response Measures Needed?

New Requirements for Emergency Preparedness and Response

To reduce risks to people who may be near a buffer zone (e.g., at their home or working in a nearby field), EPA is requiring applicators to either provide on-site monitoring of the buffer zone perimeter in areas where residences and other occupied structures are within a specific distance, or, as an alternative to on-site monitoring, provide emergency response information directly to neighbors. Whether measures are required depends on the size of the buffer zone and how close people may be to the buffer zone. An example of each element is discussed in more detail below.

When are Emergency Preparedness and Response Measures Needed?

Site-Specific Proximity Triggers for Buffer Zones Greater than 25 Feet

| If the buffer zone is: | AND there are residences and businesses: |
|---|--|
| > 25 feet and ≤ 100 feet | 50 feet from the edge of the buffer zone |
| > 100 feet and ≤ 200 feet | 100 feet from the edge of the buffer zone |
| > 200 feet and ≤ 300 feet | 200 feet from the edge of the buffer zone |
| > 300 feet | 300 feet from the edge of the buffer zone |
| Applicator must either : Monitor the air (Option 1) or Provide information to neighbors (Option 2) | |

Exception: If the buffer zone is 25 feet, the minimum buffer zone size, then Emergency Preparedness and Response measures are not required. Also, if all of the land within 300 feet of the edge of the buffer zone is under the control of the owner of the fumigated field, then Emergency Preparedness and Response measures are not required regardless of the size of the buffer zone.

Fumigant Site Monitoring

Fumigation Site Monitoring

If emergency response measures are required based on the triggers above and the applicator chooses to monitor the buffer perimeter rather than to provide information directly to the neighbors, here is what the applicator must do:

- Monitoring must begin on the day the application begins and continue until the buffer zone period expires.
- Monitoring must take place approximately 1 hour before sunset on the day the application begins and continue once during the night, once at 1 hour after sunrise, and once during the day until the end of the buffer zone period.
- Monitor for sensory irritation for metam sodium/potassium, dazomet, chloropicrin, and methyl bromide products that include at least 20% chloropicrin.
- Air concentrations of methyl bromide must be measured using a direct-read instrument if the methyl bromide product applied contains less than 20% chloropicrin.
- Monitoring must be conducted by a certified applicator or someone under his/her supervision.
- Monitoring must take place in areas between the buffer zone perimeter and residences or other occupied areas that trigger this requirement.
- If at any time the person monitoring the air concentrations experiences sensory irritation consistent with fumigant exposure, then the emergency response plan stated in the Fumigant Management Plan (FMP) must be immediately implemented.
- If other problems occur, such as a tarp coming loose, then the appropriate control plan must be activated.
- For formulations with less than 20% chloropicrin, the location and results of the air monitoring must be recorded in the post-application summary.
- For formulations with 20% or greater chloropicrin, the location where any sensory irritation occurred must be recorded in the post-application summary.

EPA believes this will help ensure that if a problem occurs during or after the fumigation, the appropriate steps can be taken to reduce the risk of exposure. While protective, site monitoring may be burdensome for users fumigating in areas with few people. Therefore, users have the option of providing emergency response information directly to neighbors rather than monitoring.

Response Information for Neighbors

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As an alternative to on-site monitoring, the certified applicator supervising the application would need to ensure that residences and businesses that trigger the requirement have been provided the information below at least one week before the application starts. The information provided may include application dates that range for no more than 4 weeks.

Response Information for Neighbors, continued

If an application is not made when specified, the information must be delivered again.

Information that must be provided includes:

- The location of the application block,
- Fumigant(s) applied including the active ingredient, name of the fumigant products(s), and the EPA Registration number,
- Contact information for the applicator and property owner/operator,
- Time period in which the fumigation is planned to take place (must not range more than 4 weeks),
- Early signs and symptoms of exposure to the fumigant(s) applied, what to do, and emergency responder phone number to call (911 in most cases), and
- How to find additional information about fumigants.

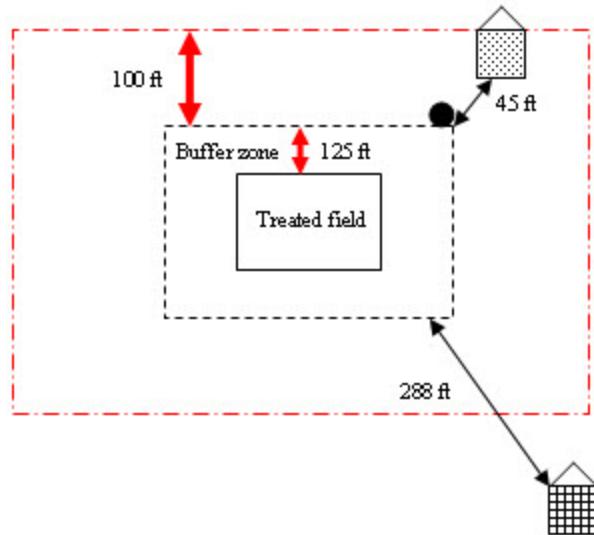
The method used to share the response information for neighbors can be accomplished through mail, telephone, door hangers, or through other methods that can be reasonably expected to effectively inform residences and businesses within the required distance from the edge of the buffer zone.

Example Site Map

Example Site Map

Below is an example to clarify this requirement:

- IF the buffer zone is **125 feet**, then these requirements apply to residences within 100 feet of the buffer zone. Either the applicator must monitor the area between the dotted house and the buffer zone or residents of the dotted house must be provided emergency response information.
- The location of the cross-hatched house would not prompt any action since it is outside the specified distance.



For additional information, please see EPA's Soil Fumigant Toolbox, www.epa.gov/opprrd1/reregistration/soil_fumigants/.