Phase 2 Soil Fumigant Requirements

Summary of 2012 label requirements

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2011/2012 Label Requirements

- Buffer Zones
- Emergency Preparedness
- Registrant Requirements
Buffer Zone distances

- Labels will display distances in tables based on
  - application rate
  - application block size
  - application equipment & methods

- Buffer zone “credits” (Not All Allowed in CA)
  - Earned for certain site conditions
    - soil type, temperature, organic matter
    - application practices that reduce emissions
## Buffer zone credits

<table>
<thead>
<tr>
<th>Condition</th>
<th>% Reduction</th>
<th>MeBr</th>
<th>Chloropicrin</th>
<th>Metam</th>
<th>Dazomet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of high barrier tarp</td>
<td>30 or 60</td>
<td>30 or 60</td>
<td>15 or 30</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Organic matter content</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 1% -2%</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>&gt; 2% -3%</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>&gt; 5% -6%</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Clay content &gt; 27%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Soil Temp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 50-70 F (pivot and shank)</td>
<td></td>
<td></td>
<td></td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>&gt; 50-70 F (drip irrigation, flood irrigation, and rotary tiller and spray blade applications)</td>
<td></td>
<td></td>
<td>10</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Symmetry application system, high barrier tarp, &lt;100 lb ai/A</td>
<td></td>
<td></td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Potassium thiosulfate seal with water applied over tarp</td>
<td>15</td>
<td>15</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Water seal applied over tarp</td>
<td>NA</td>
<td>10</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Max reduction</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>
Buffer zones

Can include:

– **Ag areas owned/operated by another person**
  - Written agreement that nobody will enter BZ
  - No overlapping buffers

– **Residential areas**
  - Written agreement that they voluntarily vacate
  - Air monitoring required for M-B with <20% pic
Buffer zones

Can include:

– Publicly owned/operated areas
  • Written permission from state/local authority responsible for management and operation
  • Area unoccupied, non-handlers prohibited

– Roads & Rights of Way
  • No permission required
  • If a road has a sidewalk, written permission is required and pedestrians are prohibited.
Transit through Buffer Zones

Allowed:
- vehicles and bikes traveling on public and private roads through a buffer zone

Prohibited:
- pedestrians
- bus stops or other locations where people wait for public transit

Note: If a road has a sidewalk, written permission to include the road is required and pedestrians are prohibited.
Buffer zone posting requirements

- Posted at usual points of entry
  - roads, sidewalks, walking paths, bike trails
- Along likely routes of approach
- Prior to start of application and remain until end of buffer zone period
- Removed 3 days after end of bz period
- Will be available at points of sale
- Does not replace treated area sign already used for Fumigants
Emergency preparedness

• If occupied structures are in close proximity to a buffer zone, the Certified Applicator must either:
  – Conduct “Fumigant Site Monitoring” (use senses or air monitors)
  OR
  – Provide “Response Information for Neighbors”
Site-specific proximity triggers for buffer zones > 25 feet:

<table>
<thead>
<tr>
<th>If the buffer zone is:</th>
<th>AND there are residences and businesses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 25 feet and ≤ to 100 feet</td>
<td>50 feet</td>
</tr>
<tr>
<td></td>
<td>from the edge of the buffer zone</td>
</tr>
<tr>
<td>&gt; 100 feet and ≤ 200 feet</td>
<td>100 feet</td>
</tr>
<tr>
<td></td>
<td>from the edge of the buffer zone</td>
</tr>
<tr>
<td>&gt; 200 feet and ≤ 300 feet</td>
<td>200 feet</td>
</tr>
<tr>
<td></td>
<td>from the edge of the buffer zone</td>
</tr>
<tr>
<td>&gt; 300 feet</td>
<td>300 feet</td>
</tr>
<tr>
<td></td>
<td>from the edge of the buffer zone</td>
</tr>
</tbody>
</table>

Applicator must either: monitor the air (Option 1) or provide information to neighbors (Option 2)
Example Site Map - Emergency Preparedness & Response Measures

- If buffer zone is 125 feet, requirement applies to residences within 100 feet of buffer zone.

- Applicator has option to monitor the air in the area between the plain house and the buffer zone, or give residents of the plain house information.

- Cross-hatched house is outside of buffer zone, no action required.
Option 1: Buffer zone Monitoring

– Use *senses or air monitors* between the buffer zone and structures within 50 to 300 ft
  • dawn, dusk, once at night, once during day for 48 hour duration

– If concentrations exceed action levels or sensory irritation occurs, *then emergency response plan must be implemented*

– EPA evaluating alternate sampling schemes
  • timing and devices
Option 2: Neighborhood notification

- Applicators provide emergency response information to neighbors

- Information includes:
  - Location of the application block
  - Fumigant name and EPA Registration #
  - Applicator and property owner/operator contact information
  - Expected time period for the fumigation and buffer
  - Early signs and symptoms of exposure and what to do if exposure is suspected (call 911 in most cases)
  - How to find additional information about fumigants
Difficult to evacuate sites

EPA has defined *difficult-to-evacuate sites* as:

- schools (preschool-12)
- state licensed daycare centers
- nursing homes
- assisted living facilities
- hospitals
- in-patient clinics
- prisons

If occupied during the application or within 36 hrs after the application, then applications are prohibited within \( \frac{1}{4} \) or \( \frac{1}{8} \) of a mile (depending on size of buffer zone).
Registrant Requirements

2010/11
1. Provide Fumigant Safe Handler information

2011/12
1. Provide information for first responders
2. Provide community outreach programs
4. Develop and provide training for Certified Applicators in charge of a fumigant application
   • Will be EPA approved training
   • Registrants will issue cards and maintain database
   • State certification may be used in lieu of Registrant training.
For More Information

• EPA Region 9 Contacts
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