

WSDA INTERPRETATIVE DOCUMENT

SOIL FUMIGANTS – PHASE 1 AND 2 LABEL PROVISIONS



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In May 2009, EPA issued the amended Reregistration Eligibility Decisions for the soil fumigant pesticides, which included new safety measures to increase protections for agricultural workers and bystanders. Safety measures, known as risk mitigation measures, were progressively implemented in December 2010 (Phase 1) and December 2012 (Phase 2) pesticide labels. WSDA Interpretative Documents are written to clarify safety measures.

This interpretative document neither alters provisions nor replaces provisions on the Section 3 label, but merely provides supplemental information.

Any subsequent revision or interpretation to the pesticide label may or may not reflect the content of this interpretation. This interpretative document may be revised or withdrawn at any time.

Supervision of Handlers

With the Phase I risk mitigation measures, the pesticide label includes a provision on supervision of handlers. Described under the “Supervision of Handlers” section, supervision of all persons performing handling activities is segregated into shank applications (e.g., ground rig) and water run applications (e.g., chemigation).

Shank Applications: The label provision is unmistakable in that two requirements must be satisfied. A supervising certified applicator (whether commercial or private) must:

- be physically present at the application block in the line of sight of the application and
- directly supervise all persons performing handling activities.

Water Run: Label provisions require that certain activities must be performed by a certified applicator regardless of commercial or private. Specifically, a certified applicator must:

- be physically present and in the line of sight of the application at the start of the application, including set-up, calibration, and initiation of the application;
- return at least every two hours to visually inspect the equipment to ensure proper functioning; and
- directly supervise all WPS-trained handlers until the application is complete.

For a grower (private applicator)-supervised chemigation application, the monitoring function can be performed by a soil fumigant handler under the supervision of a private applicator, providing adherence to the preceding three bulleted items.

As a commercial application, the WPS-trained handler conducting the monitoring function must be under the direct supervision of a certified applicator during the entire application. Under Washington State law, direct supervision for a commercial application means in voice and visual contact at all times during the application.

WPS-trained handler means a soil fumigant-trained handler.

General policy statements and interpretative documents represent WSDA’s official interpretation of statute, rule, pesticide label instructions, and agency policy.

Additional information about this document may be obtained by calling the WSDA Pesticide Management Division’s toll-free telephone number, (877) 301-4555, or by dialing direct, (360) 902-2040.

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While a WPS-trained handler may monitor – that is, observe or visually inspect, the general operation of the chemigation system (e.g., start-up or shut down, calibrate, adjust, repair, maintenance) must be performed by a certified applicator or by someone under the supervision of a certified applicator.

Monitor means to observe or visually inspect.

According to the Washington State Chemigation Rule (WAC 16-202-1002), a chemigation system is inclusive of the chemical injection system, and the irrigation water supply and irrigation application systems.

WPS-Trained Handler

When the pesticide label refers to a “WPS-trained handler,” it should be assumed that a soil fumigant handler is being referenced. A soil fumigant handler is a Worker Protection Standard (WPS)¹ trained handler who has received the

Fumigant Safe Handling information that is specific to each active ingredient used (i.e., metam, chloropicrin, methyl bromide). If not provided directly by the certified applicator, the certified applicator must confirm that each handler participating in the application has received the Fumigant Safe Handling information in a manner they can understand within the past twelve months.

Difficult-to-Evacuate Sites

The “Difficult to Evacuate Site” requirement calls attention to the unique attributes of certain types of sites with regard to the difficulty in evacuating.

Difficult-to-evacuate sites as specified on the pesticide label are listed below. A distinction is made between an occupied and unoccupied site as to people of concern. Additionally, a person of concern does not include support personnel or institutional staff. Property such as an outbuilding that is annexed, adjoined, or adjacent to the structure(s) of interest is also excluded if persons of concern will not be present in the structure during the application and the 36-hour period following the end of the application.

- Schools (pre-kindergarten through grade 12)
- State licensed daycare centers
- Nursing homes
- Assisted living facilities
- Hospitals
- In-patient clinics (overnight care is provided)
- Prisons

The pesticide label explicitly prohibits a soil fumigant application if a difficult-to-evacuate site is (1) occupied during the application and the 36-hour period following the end of the application and (2) in close proximity to the application block (treatment site). Proximity of a difficult-to-evacuate site to an application block is determined by the size of the buffer zone, as illustrated in the accompanying table, which extends from the edge of the application block perimeter equally in all directions.

Proximity to Difficult-to-Evacuate Sites	
Buffer zone is:	Applications are prohibited from application block edge to:
≤ 300 feet	1/8-mile (660 feet)
> 300 feet	1/4-mile (1,320 feet)

In most situations, a “site” typifies a physical structure (e.g., school building, hospital, clinic) or an institutional complex (e.g., prison). However, some “sites” may encompass large land tracts (e.g., parking lots, playgrounds, sport fields, landscaped or naturalized areas) in which persons of concern may gather or transit. In such a scenario, a physical structure could be located a substantial distance from the perimeter of the surrounding open space that is occasionally occupied by persons of concern. Consequently, delineating a difficult-to-evacuate site within the property boundary of an open space requires additional explanation.

Is the difficult-to-evacuate site inclusive of all the structures or land tracts within the property boundary? Not necessarily. Soil fumigation restrictions are applicable only when the “site” is occupied by the difficult to evacuate group (e.g., school children or patients) for activities or events that are authorized or sanctioned by the administrating authority. An assemblage of people at a site that is “unauthorized” or “unknown” to administrative personnel is not subject to the soil fumigation restriction.

In determining proximity of a difficult-to-evacuate site, linear distance is measured from the closest edge of the application block to the occupied building(s), including the parking lot(s) if in use. For open spaces, the prohibitive distance shall be the linear distance from the closest edge of the application block to the area occupied by the people of concern during the fumigation application and the 36-hour post application period. For example: A school property may include a running track, tennis court, or ball field. If the track, tennis court, or ball field is occupied by students, then the linear distance is measured from the edge of the track to the perimeter of the application block, not the school building.

If the administrative or consenting authority cannot guarantee that the site will be clear of children, students, patients, or prisoners as applicable to the site, then the soil fumigation cannot occur.

It is the responsibility of the certified applicator to contact the appropriate person of authority to determine whether the site(s) will or will not be occupied during the soil fumigation timeframe. The contact should be a duly authorized spokesperson or designated representative governing activities at the site. For instance, the superintendent or a principal may be the designated authority involving activities on school property. It is suggested that the name of the contact person along with the time and date that the contact was made be entered into the Fumigation Management Plan.

Leased Public Lands

Leased public lands, such as Department of Natural Resources (DNR) or Bureau of Land Management, may serve a dual function. Specifically, leased DNR lands may be used for growing an agricultural crop or set-aside as a recreational area or conservancy. Sometimes, these dual uses may encompass a single land tract.

With regard to publicly owned or operated areas – that is, lands not under the control of the owner of the application block, buffer zones must not include these areas unless:

- the area is not occupied during the buffer zone period,
- entry by non-handlers is prohibited during the buffer zone period, and
- written permission to include the public area in the buffer zone is granted by the appropriate federal, state, and/or local authority(ies) responsible for management and operation of the area.

Of specific concern to applicators are publicly-owned tracts of land that are leased for crop production on which a fumigant application is planned which accommodate public access. Scenarios include, but are not limited to:

- an adjoining parcel is designed for plant or wildlife preservation that people may enter,
- an established parking lot to accommodate hikers or observers, or
- signage is posted for a designated trail.

If a buffer zone is to include these types of features, written permission must be secured before the application and people excluded from these areas during the application and for a minimum of 48-hours after the application is complete (i.e., buffer zone period). Furthermore, the buffer zone must be posted in accordance with the “Posting Fumigant Buffer Zones” section of the pesticide label.

Record Keeping Procedures for FMP and PAS

Prior to the start of an application, the certified applicator of the application must verify that a site-specific Fumigant Management Plan (FMP) exists for each application block. Additionally, within 30 days after the completion of the application, the certified applicator must complete the Post Application Summary (PAS).

The record-keeping procedures are the same for both the FMP and PAS; specifically, the owner of the application block as well as the certified applicator must keep a signed copy of both documents for two years from the date of application. Because leased or rented land may be owned by trusts, estates, investment companies, banking or insurance institutions, or absentee landowners that have little or no knowledge of production practices or that have no interest in archiving these records, is there a more feasible option aside from the label requirement?

The pesticide defines “Owner” in the “Terms Used in This Labeling” as “any person who has a present possessory interest . . . in an agricultural establishment”. (Agricultural establishment means any farm, forest, plant nursery, or greenhouse.²) Accordingly, the tenant (i.e., lessee, leaseholder, renter) has been granted the right and full authority to manage and govern the use of the property by the owner. To that end, the FMP and PAS should bear the name of the tenant as the owner. Furthermore, the tenant assumes archival responsibility for these documents and must retain possession for the two-year timeframe.

Exclusion of Unauthorized People from Buffer Zone

As written in the “Areas not Under the Control of the Owner of the Application Block” section on the Phase II label, a buffer zone cannot include agricultural areas owned and/or operated by persons other than the owner of the application block. However, an exception is noted in that the property owner of the agricultural area onto which the buffer will encroach may provide a written agreement to the certified applicator in which the property owner agrees to exclude people from the buffer zone during the buffer zone period. Furthermore, the owner of the application block to which a soil fumigant application is to be made has the burden of ensuring the buffer zone will not overlap another buffer zone (of a same active ingredient product; i.e., chloropicrin, MITC-generating) that is in effect with another application.

With respect to the definition of “Owner” in the “Terms Used in This Labeling” section of the pesticide label, it is the tenant (i.e., lessee, leaseholder, renter) who has “a present possessory interest” in the property. As such, the tenant is consigned with the responsibility to initiate exclusionary measures during the buffer zone period³ or to ensure that buffer zones do not overlap. Thus, the tenant must provide a written agreement to the certified applicator substantiating that unauthorized personnel will be excluded from that portion of the buffer zone infringing onto the property throughout the buffer zone period. The certified applicator must also verify that the buffer zone will not impinge onto an existing buffer zone of another application.

Reentry into Vacated Treatment Area in Response to Sensory Irritation

The “Respiratory Protection and Stop Work Triggers” section details two circumstances requiring immediate action to minimize handler exposure when trigger concentration levels of a fumigant are experienced. Specifically, in the event that any handler experiences sensory irritation, the Fumigant Management Plan must specify one of two courses of action.

- ① An air-purifying respirator must be worn by all handlers who remain in the application block or surrounding buffer zone, or
- ② Operations must cease and handlers not wearing an air-purifying respirator must leave the application block and surrounding buffer zone.

If the FMP specifies that an air-purifying respirator is to be worn, concentration levels must be monitored using a direct-read device, taking consecutive breathing-zone samples, to determine when the respirators can be removed. However, for those who chose to cease operations and vacate the site, what quantifying measure is used to determine when reentry can occur? Periodic reentry into the treatment area to determine whether sensory irritation continues to be experienced by the handler(s) is not an acceptable practice. In fact, the same quantifying measure must be used as those who chose to wear an air-purifying respirator. Before handlers can reenter the application block or the buffer zone, an applicator or handler wearing an air-purifying respirator must take air monitoring measurements. For reentry to occur, the air concentration level as determined by a direct-read detection device (e.g., colorimetric tube) must be less than the trigger level listed on the label, and sensory irritation must not be experienced by any fumigant handler. Measurements must be taken where sensory irritation was first experienced and within the handler’s breathing zone.⁴

This document does not apply to either Telone II or Telone EC.

¹ Worker Protection Standard, 40 CFR Part 170.

² Worker Protection Standard, 40 CFR Section 170.3: Definitions.

³ Buffer zone period begins at the start of the application and remains in effect for a minimum of 48-hours after its completion.

⁴ Breathing zone is defined as being within a 10-inch radius of the fumigant handler’s nose and mouth.