

Soil Fumigant Mitigation Factsheet:

Phase 2 Site-Specific Fumigant Management Plans and Post-Application Summaries

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 requirements are being implemented in 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.

Fumigant Management Plans

Elements of FMPs

To address the risk to bystanders, handlers and workers, the Agency is requiring site-specific fumigant management plans (FMPs) and post-application summaries. Each site-specific FMP must contain the following elements:

- ❖ Certified applicator information (name, phone number, license and/or certificate number, employer name, employer address)
- ❖ General site information
- ❖ Application block location (e.g., address or global positioning system (GPS) coordinates)
- ❖ Name, address, and, phone number of owner of the application block
- ❖ Map showing the application block location and dimensions, buffer zone, property lines, roadways, rights-of-ways, sidewalks, permanent walking paths, bus stops, nearby application blocks, surrounding structures, locations of buffer zone signs, and locations of difficult to evacuate sites
- ❖ General application information (target application date/window, brand name of fumigant, EPA registration number)
- ❖ Tarp plan (if tarp is used)
 - Schedule for checking tarps for damage, tears, and other problems
 - Factors used to determine when tarp repair will be conducted
 - Equipment/methods used to perforate tarps
 - Target dates for perforating tarps
 - Target dates for removing tarps

Fumigant Management Plans (continued)

- ❖ Soil conditions (description of soil texture and moisture in application block, method used to determine soil moisture, and soil temperature measurements if needed)
- ❖ Buffer zone information (application method and rate, injection depth, application block size, credits applied and measurements taken to support the credits, buffer zone distance, and description of areas in the buffer zone that are not under the control of the owner of the application block)
- ❖ Emergency response plan
- ❖ Posting procedures (person(s) who will post signs, dates for posting and for sign removal)
- ❖ Emergency Preparedness and Response Measures (if applicable)
 - When and where fumigant site monitoring will be conducted (if applicable)
 - Response information for neighbors if applicable (list of residences and businesses informed, name and phone number of person providing information, and method of providing information)
- ❖ State and/or tribal lead agency advance notification (if state and/or tribal lead agency requires notice, provide a list of contacts that were notified and date notified)
- ❖ Plan describing how communication will take place between applicator, land owner, and other on-site handlers (e.g., tarp perforators/removers, irrigators) for complying with label requirements (e.g., timing of tarp cutting and removal, PPE, buffer zone location, buffer zone start and end times)
 - Name and phone number of persons contacted
 - Date contacted
- ❖ Handler (including Certified Applicators) information and PPE
 - Names, addresses and phone numbers of all handlers
 - Employer name, addresses, and phone numbers for all handlers
 - Tasks that each handler is authorized and trained to perform
 - Date of PPE training for each handler
 - Applicable handler PPE
- ❖ For handlers: Confirmation of receipt of Fumigant Safe Handling Information
- ❖ For certified applicator(s) supervising the application: Completion date and location of the soil fumigant training program
- ❖ For handlers designated to wear respirators:
 - Date of medical qualification to wear a respirator
 - Date of respirator training
 - Date of fit testing for the respirator

Fumigant Management Plans (continued)

- ❖ Unless exempted, verify that:
 - Handlers have the appropriate respirators and cartridges during handler activities
 - The employer has confirmed that the appropriate respirator and cartridges are immediately available for each handler who will wear one
- ❖ Air monitoring plan
 - For monitoring after tarp perforation is complete and before tarp removal begins, indicate the monitoring equipment to be used and the timing of monitoring
 - If sensory irritation is experienced, indicate whether operations will be ceased or operations will continue with respiratory protection
 - For monitoring the breathing zone when using **methyl bromide formulations with < 20% chloropicrin**:
 - Representative handler tasks to be monitored
 - Monitoring equipment to be used and timing of monitoring
 - For monitoring residential structures within the buffer zone (for re-entry) when using **methyl bromide formulations with < 20% chloropicrin**:
 - Monitoring equipment to be used and timing of the monitoring
 - Monitoring location
- ❖ Description of applicable mandatory Good Agricultural Practices (GAPs)
- ❖ Description of hazard communication (The application block has been posted in accordance with the label. Pesticide product labels and material safety data sheets are on-site and readily available for employees to review.)
- ❖ Record-keeping procedures (the owner of the application block, as well as the certified applicator, must keep a signed copy of the site-specific FMP for 2 years from the date of application)

For situations where an initial FMP is developed and certain elements do not change for multiple fumigation sites (e.g., applicator information, handlers, record keeping procedures, emergency procedures) only elements that have changed need to be updated in the site-specific FMP provided the following:

- ❖ The certified applicator supervising the application has verified that those elements are current and applicable to the application block before it is fumigated
- ❖ Recordkeeping requirements are followed for the entire FMP (including elements that do not change)

The certified applicator must make a copy of the FMP immediately available for viewing by handlers involved in the application. The certified applicator or the owner of the application block must provide a copy of the FMP to any local/state/federal/tribal enforcement personnel who request the FMP. In the case of an emergency, the FMP must be made available when requested by local/state/federal/tribal emergency response and enforcement personnel. The certified applicator must ensure the FMP is at the application block during all handler activities.

New Requirements for Post-Application Summaries

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Within 30 days of completing the application portion of the fumigation process, the certified applicator supervising the application must complete a post-fumigation application summary that describes any deviations from the FMP that have occurred, measurements taken to comply with GAPS, as well as any complaints and/or incidents that have been reported to him/her.

Specifically the Post-Application Summary must contain the following elements:

- ❖ Actual date and time of the application, application rate, and size of application block fumigated
- ❖ Summary of weather conditions on the day of the application and during the 48-hour period following the fumigant application including wind speed and air stagnation advisories. The forecast must be checked on the day of, but prior to the start of the application, and on a daily basis during the application if the time period from the start of the application until the application is complete is greater than 24 hours.
- ❖ Tarp damage and repair information (if applicable)
 - Date of tarp damage discovery
 - Location and size of tarp damage
 - Description of tarp/tarp seal/tarp equipment failure
 - Date and time of tarp repair completion
- ❖ Tarp perforation/removal details (if applicable)
 - Date and time tarps were perforated
 - Date and time tarps were removed
 - If tarps were perforated and/or removed early, describe the conditions that caused early perforation and/or removal
- ❖ Complaint details (if applicable)
 - Person filing complaint (e.g., on-site handler, person off-site)
 - If person filing complaint is off-site, provide their name, address, and phone number
 - Description of control measures or emergency procedures followed after complaint
- ❖ Description of incidents, equipment failure, or other emergency and emergency procedures followed (if applicable)
- ❖ Air monitoring results
 - When sensory irritation experienced:
 - Date, time, location, and handler task/activity where irritation was observed
 - Resulting action (e.g., cease operations, continue operations with respiratory protection, implement Emergency Response Plan)

Post-Application Summaries (continued)

- When using a direct read detection device:
 - Sample date(s), time(s), location(s), and concentration(s)
 - Handler task/activity monitored (if applicable)
 - Resulting action (e.g., cease operations, continue operations with respiratory protection, implement Emergency Response Plan)
- ❖ Date of sign posting and removal
- ❖ Any deviations from the FMP

Both the certified applicator and owner of the application block keep a signed copy of the post-application summary record for 2 years from the date of application.

Applicators and other stakeholders have the flexibility to use EPA's FMP template, prepare their own FMP templates, or use other commercially available software with certain elements listed above in check-list and/or fill in the blank format.

For additional information, please see EPA's Soil Fumigant Toolbox, www.epa.gov/oppsrd1/reregistration/soil_fumigants/.