



Module 4

Fumigant Reregistration

Handler Definition & Requirements

Handler Definition

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Handler Requirement 1

Handler Requirement 2

Handler Requirement 3

Handler Requirement 4

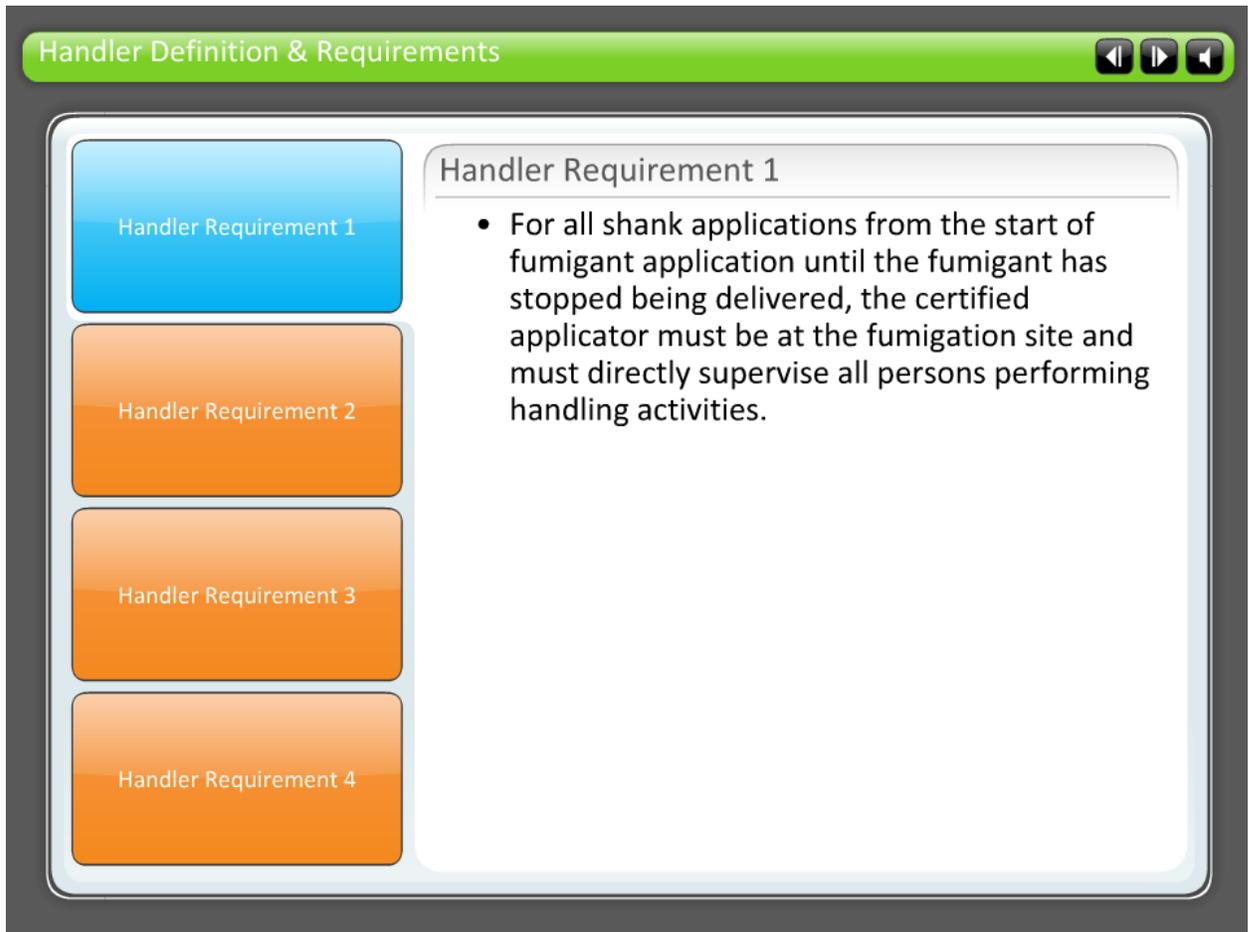
Handler Definition

- The following activities are prohibited in the application block or surrounding buffer zone unless trained and equipped as a handler.
 - Participate in the application: including supervising, tractor driving, loaders, shovelers, etc.
 - Using devices to take air samples
 - Fumigant spill cleanup
 - Handling or disposing of fumigant containers
 - Cleaning, adjusting, or repairing parts of fumigant machinery
 - Installing, repairing, or operating irrigation equipment in the application block or the buffer zone during the buffer zone period
 - Entering the buffer zone during the buffer zone period to perform tasks
 - Repairing, monitoring, or installing tarps

Tab Text

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Handler Requirement 1



The screenshot shows a software window titled "Handler Definition & Requirements" with a green header bar. On the left side, there is a vertical list of four buttons: "Handler Requirement 1" (highlighted in blue), "Handler Requirement 2", "Handler Requirement 3", and "Handler Requirement 4" (all in orange). On the right side, the details for "Handler Requirement 1" are displayed in a white box with a light blue border. The text reads: "Handler Requirement 1" followed by a bullet point: "• For all shank applications from the start of fumigant application until the fumigant has stopped being delivered, the certified applicator must be at the fumigation site and must directly supervise all persons performing handling activities."

Tab Text

- For all shank applications from the start of fumigant application until the fumigant has stopped being delivered, the certified applicator must be at the fumigation site and must directly supervise all persons performing handling activities.

Handler Requirement 2



Handler Definition & Requirements

Handler Requirement 1

Handler Requirement 2

Handler Requirement 3

Handler Requirement 4

Handler Requirement 2

- For drip application the certified applicator must set and calibrate the equipment but then can leave the site but must return every 2 hours to visually inspect the system. The handlers must be able to make contact with the certified applicator at all times.

Tab Text

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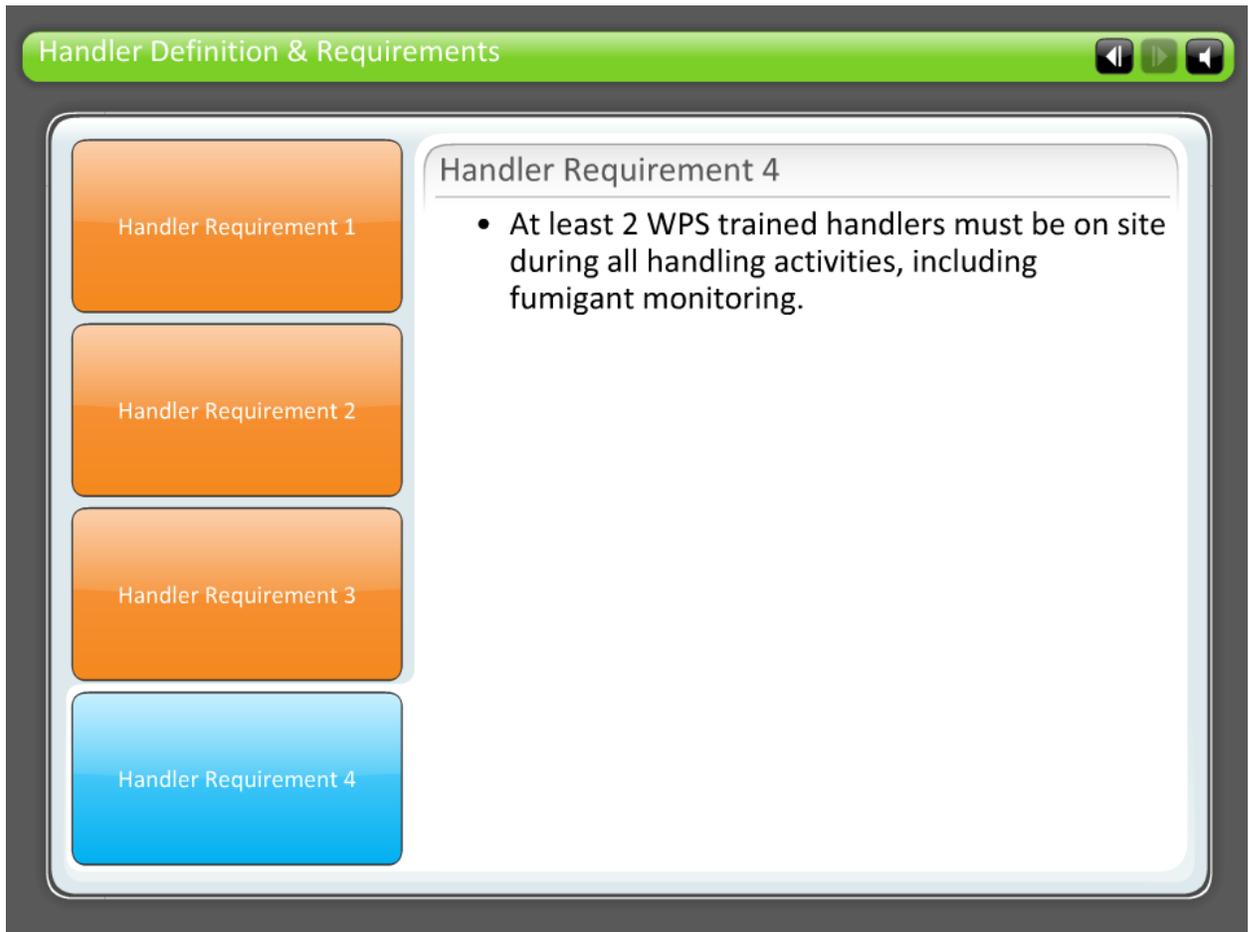
Handler Requirement 3

The screenshot shows a software window titled "Handler Definition & Requirements" with a green header bar. On the left side, there is a vertical list of four buttons: "Handler Requirement 1", "Handler Requirement 2", "Handler Requirement 3", and "Handler Requirement 4". The "Handler Requirement 3" button is highlighted in blue, while the others are orange. On the right side, a panel displays the details for "Handler Requirement 3", which includes a single bullet point: "After application the certified applicator must have provided in writing (if leaving the site) to the handlers the procedures needed for work to continue (including monitoring and emergency)".

Tab Text

- After application the certified applicator must have provided in writing (if leaving the site) to the handlers the procedures needed for work to continue (including monitoring and emergency)

Handler Requirement 4



The screenshot shows a software window titled "Handler Definition & Requirements" with a green header bar. On the left side, there is a vertical list of four buttons labeled "Handler Requirement 1", "Handler Requirement 2", "Handler Requirement 3", and "Handler Requirement 4". The "Handler Requirement 4" button is highlighted in blue, while the others are orange. On the right side, a panel displays the details for "Handler Requirement 4", which includes a bulleted list: "At least 2 WPS trained handlers must be on site during all handling activities, including fumigant monitoring." The panel also has a title bar with "Handler Requirement 4" and a horizontal line below it.

Tab Text

- At least 2 WPS trained handlers must be on site during all handling activities, including fumigant monitoring.

Ambient monitoring during application

- Those persons designated to monitor air concentrations of fumigant must be trained as handlers
- Monitoring must be conducted using the procedures as listed on the fumigant label
- All results of air monitoring must be recorded in the fumigant management plan.



Certified applicator's responsibility

- Ensure that delivery of all necessary emergency response materials have been delivered to neighboring residences and businesses one week prior to fumigant application
- Ensure that those workers that require it have been trained as handlers, and where applicable have received respirator training and fit testing
- Deliver to the owner/operator all the required information including the fumigant management plan and air monitoring requirements if the applicator is to leave the site after application



Dermal Protection/PPE Basics

- Baseline work clothes refers to long sleeved shirt, long pants, socks and shoes.
- Transferring Liquids (example from Pic-Clor 60)
 - Baseline + chemical resistant gloves, chemical resistant apron, chemical resistant footwear, and protective eyewear (do not wear goggles)
- Driving Ground Equipment (example from metam)
 - Closed Cab - Baseline
 - Open Cab – Baseline + Coveralls, chemical resistant footwear



Dermal Protection/PPE Basics

- Baseline work clothes refers to long sleeved shirt, long pants, socks and shoes.
- Setup, Calibration, and Startup of Chemigation
 - Baseline + protective eyewear
- Early Entry or Monitoring (up to 120 hours after application)
 - Baseline
 - Unless they will be exposed to liquid contact then for PicClor 60 – Baseline + chemical resistant gloves, chemical resistant apron, chemical resistant footwear, and protective eyewear



Respiratory Protection

- Some products will require all handlers to wear a half mask respirator during handler tasks.
- If a handler experiences sensory irritation
 - An air purifying respirator must be worn by all handlers who remain in the application block and surrounding buffer zone or the applicator can cease operations
 - Respirators can be removed or work can be resumed if 2 consecutive breathing zone samples taken at the handling site at least 15 minutes apart show levels of the fumigant has fallen below certain levels (example: chloropicrin less than 0.15 ppm with no sensory irritation)
- For most fumigants and all those containing chloropicrin, you must wear a full face respirator when required respirator protection is triggered.



Respiratory Protection

- When full face respirators are worn samples must be taken every 2 hours.
 - If a handler experiences sensory irritation or samples are equal to or above a certain level (1.5 ppm for chloropicrin) then all work must cease and handlers removed. If operations cease then emergency procedures outlined in the fumigant management plan must be implemented
 - Handlers can resume activities without a full face respirator after the 2 consecutive samples, 15 minutes apart with less than a certain level (0.15 ppm for chloropicrin). During collection of samples the sampler must be wearing a full face respirator
 - Handlers can resume activities with a full face respirator if the levels are below a certain level (1.5 ppm for chloropicrin) from 2 samples taken 15 minutes apart and no handler experiences sensory irritation, and if the cartridges have been changed.



Respiratory Protection

- If a fumigator will cease operations upon the respirator triggering sensory irritation, no fit testing, medical qualification, and training are necessary for workers who will not perform tasks requiring them.
- Fit testing – fit tested and fit checked using OSHA requirements
- Training – using a program that conforms to OSHA
- Medical qualification by a qualified medical practitioner
 - Initial questionnaire
 - If any problems then a medical exam may be necessary
- These requirements are to be completed annually.



Respiratory Protection

At least one air-rescue device (e.g. SCBA) must be onsite and ready to use in case of an emergency. This must be documented in the FMP.



Buffer Zone Entry

- While the buffer period will end 48 hours after the conclusion of fumigation, the reentry period will be 120 hours (5 days) from the conclusion of fumigation.
- Only a correctly trained and PPE-equipped handler may enter the area prior to the end of the 120 hours.
- Workers can transit through the buffer zone as long as they are not on foot.



Fumigated area entry for days 1-5

- Only the following handler tasks are allowed in the first 5 days after fumigant application
 - Assessing/adjusting the soil seal
 - Assessing pest control, application technique, or application efficacy
 - Sampling air or soil for the fumigant
 - Removing tarp or plastic (see tarp removal section for details)



Tarp Perforation and Removal

- Tarp Perforation
 - No perforation can occur prior to 5 days after application unless a weather condition exists that may affect the integrity of the tarp
 - Tarps must be perforated by mechanical means except for the beginning of each row, when fields are 1 acre or less, or during flood prevention activities
 - Tarp perforation for broadcast applications must occur before noon
 - Do not perforate if rainfall is expected within 12 hours



Tarp Perforation and Removal

- Tarp Removal
 - If tarps are to be removed, tarp removal must not begin until at least 2 hours (Pic-Clor 60 example) have passed since tarp perforation
 - Early removal of the tarps must be documented in the fumigant management plan
- Planting into tarps
 - Planting cannot occur until 48 hours after tarp perforation unless 14 days have passed since application at which time planting may occur immediately



Module Four Review Questions

Questions

1. Farm workers can participate in the fumigant application even if they are not a certified handler.

Farm workers can participate in the fumigant application even if they are not a certified handler.

True

False

Correct	Choice
	True
X	False

2. For all shank applications from the start of fumigant application until the fumigant has stopped being delivered, the certified applicator must be at the fumigation site and must directly supervise all persons performing handling activities.

For all shank applications from the start of fumigant application until the fumigant has stopped being delivered, the certified applicator must be at the fumigation site and must directly supervise all persons performing handling activities.

True

False

Correct	Choice
X	True
	False

3. For drip application the certified applicator must set and calibrate the equipment but then can leave the site but must return every _____ hour/s to visually inspect the system. The handlers must be able to make contact with the certified applicator at all times.

For drip application the certified applicator must set and calibrate the equipment but then can leave the site but must return every _____ hour/s to visually inspect the system. The handlers must be able to make contact with the certified applicator at all times.

1

2

3

4

Correct	Choice
	1
X	2
	3
	4

4. At least _____ trained handlers must be on site during all handling activities, including fumigant monitoring.

At least _____ trained handlers must be on site during all handling activities, including fumigant monitoring.

- 1
- 2
- 3
- 4

Correct	Choice
	1
X	2
	3
	4

5. Air monitoring results only have to be recorded in the fumigant management plan if extremely high levels are detected.

Air monitoring results only have to be recorded in the fumigant management plan if extremely high levels are detected.

True

False

Correct	Choice
	True
X	False

6. Which of the following are responsibilities of certified applicators? (Check all that apply)

Which of the following are responsibilities of certified applicators? (Check all that apply)

- Ensure that delivery of all necessary emergency response materials have been delivered to neighboring residences and businesses one week prior to fumigant application
- Ensure that those workers that require it have been trained as handlers, and where applicable have received respirator training and fit testing
- Deliver to the owner/operator all the required information including the fumigant management plan and air monitoring requirements if the applicator is to leave the site after application

Correct	Choice
X	Ensure that delivery of all necessary emergency response materials have been delivered to neighboring residences and businesses one week prior to fumigant application
X	Ensure that those workers that require it have been trained as handlers, and where applicable have received respirator training and fit testing
X	Deliver to the owner/operator all the required information including the fumigant management plan and air monitoring requirements if the applicator is to leave the site after application

7. Baseline work clothes refers to which four things?

Baseline work clothes refers to which four things?

- long sleeved shirt, long pants, socks and shoes
- long sleeved shirt, socks and shoes, respirator
- long pants, long sleeved shirt, hazardous materials suit, respirator
- socks and shoes, head covering, long pants

Correct	Choice
X	long sleeved shirt, long pants, socks and shoes
	long sleeved shirt, socks and shoes, respirator
	long pants, long sleeved shirt, hazardous materials suit, respirator
	socks and shoes, head covering, long pants

8. If applying fumigants from an open cab tractor, coveralls and chemical resistant footwear would be needed in addition to baseline clothing.

If applying fumigants from an open cab tractor, coveralls and chemical resistant footwear would be needed in addition to baseline clothing.

True

False

Correct	Choice
X	True
	False

9. If sensory irritation occurs, an air purifying respirator must be worn by all handlers who remain in the application block and surrounding buffer zone or the applicator can cease operations.

If sensory irritation occurs, an air purifying respirator must be worn by all handlers who remain in the application block and surrounding buffer zone or the applicator can cease operations.

True

False

Correct	Choice
X	True
	False

10. Handlers can resume activities without a full face respirator after the 2 consecutive samples, taken _____ minutes apart with less than a certain level.

Handlers can resume activities without a full face respirator after the 2 consecutive samples, taken _____ minutes apart with less than a certain level.

- 5
- 10
- 15
- 20

Correct	Choice
	5
	10
X	15
	20

11. Training for respiratory equipment must be conducted annually but does not necessarily have to be OSHA certified training.

Training for respiratory equipment must be conducted annually but does not necessarily have to be OSHA certified training.

True

False

Correct	Choice
	True
X	False

12. At least _____ air-rescue device/s must be onsite and ready to use in case of an emergency.

At least _____ air-rescue device/s must be onsite and ready to use in case of an emergency.

Acceptable numeric values	
Equal to	1

13. While the buffer period will end 48 hours after the conclusion of fumigation, the reentry period will be _____ or _____ days from the conclusion of fumigation.

While the buffer period will end 48 hours after the conclusion of fumigation, the reentry period will be _____ or _____ days from the conclusion of fumigation.

- 72; 3
- 96; 4
- 120; 5
- 144; 6

Correct	Choice
	72; 3
	96; 4
X	120; 5
	144; 6

14. Tarp perforation for broadcast applications must occur before dusk.

Tarp perforation for broadcast applications must occur before dusk.

True

False

Correct	Choice
	True
X	False

15. Planting cannot occur until 48 hours after tarp perforation unless _____ days have passed since application at which time planting may occur immediately.

Planting cannot occur until 48 hours after tarp perforation unless _____ days have passed since application at which time planting may occur immediately.

Acceptable numeric values	
Equal to	14