

## Chapter 7: Structural Fumigation Use Monitoring Inspection Report (PR-ENF-107)

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**Purpose** The Structural Fumigation Use Monitoring Inspection is performed to inspect Branch 1 structural pest control businesses during one of the phases of a structural fumigation as described below. Your inspection should document whether or not the handler and employer are complying with pesticide labeling requirements, laws and regulations, training, worker safety and other regulatory requirements. You also determine whether the operator is mitigating any possible hazard to persons, non-target animals or property. Your inspection of equipment in use indicates if it is safe for handlers and the environment. Your observations provide a picture of the employer's safety program and the employee's knowledge of pesticide handling requirements and safety precautions.

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**Special header information** The following are directions for how to fill out the information blocks of this inspection form not found on most other forms. Please refer to the General Inspection Procedures chapter for more information on how to fill out this form.

**Business Registration Number.** Print the registration number of the business being inspected. Check the "UNL" (unlicensed) box if a person/business is fumigating without a valid Structural Pest Control Board (SPCB) registration.

**Required Distance Maintained.** Check the "N/A" box if methyl bromide is not being used. If methyl bromide is used, check "YES" or "NO" to document whether the minimum distance required by 3CCR § 6454 is maintained.

**Individual License Number.** Print the license number of the person in charge of the activity being inspected and check the appropriate box for the license type. An Operator (OPR) or Field Representative (FR) is required to be on site when the fumigant is introduced, when the tarps are broken at the end of the aeration period, and when the structure is certified safe for reentry. Also, a licensed Operator or Field Representative must be present for, and assure completion of, Steps 1 through 4 of the CAP. An unlicensed person must not apply fumigants unless supervised by a licensee on site. The crew preparing the structure for fumigation does not require licensing. A box for UNL (unlicensed) is provided for a person fumigating without a valid license.

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### Special header information (continued)

Fumigation Check Boxes. Check the appropriate box on the Structural Fumigation line as to which phase of the fumigation you are inspecting as described below.

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### Types of structural fumigation inspections

Structural fumigations have three distinct phases. They are:

- 1) **Application** - The closing or “shooting” phase, beginning with structural preparation and tarpaulin placement, and ending when the fumigant release is completed;
- 2) **Aeration** - The opening or commencement of aeration phase, beginning when the inlet devices are opened and fans are turned on. Aeration continues until active ventilation has been maintained for 12 hours. The aeration phase for inspection purposes may begin when the operation to remove the tarps is initiated and ends when all tarps and seals have been removed from the structure and steps 2 and 3 of the California Aeration Plan (CAP) have been completed; and
- 3) **Certification** - The certification or clearing phase, when the operator or field representative certifies the structure safe for reentry. (Step 4 of the CAP).

The inspector should witness the critical fumigation activities performed by the operator or field representative during a fumigation phase and address as many inspection requirements as possible to qualify the inspection as complete. Because circumstances may prevent the ideal inspection situation, the complete inspection criteria allow limited flexibility. The inspector must:

- 1) Make personal contact with the operator or field representative; and
- 2) Evaluate the maximum number of fumigation requirements possible.

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### Application phase – minimum criteria

The minimum inspection activities that must be performed during the application phase are:

- 1) Observe the fumigant release;
- 2) Determine compliance or non-compliance with all records and paperwork requirements at the site; and
- 3) Determine compliance or non-compliance with all of the pesticide regulatory and labeling requirements on the inspection form pertaining to the application phase. Request the operator or field representative to sign the inspection form at the site.

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### **Application phase – minimum criteria** (continued)

The only exception to the minimum criteria occurs when the structure cannot be entered. Some inspection requirements can only be addressed when inside the structure. The inspector can request the operator or field representative to open the tarpaulin prior to releasing the fumigant, allowing entry to directly address the requirements that can only be checked from inside the structure. When requirements cannot be directly addressed because entry into the structure cannot be gained, include an explanation on the inspection form. An application phase inspection can still be considered complete if entry into the structure is not possible. All other inspection activities pertaining to this phase that can be addressed without entering the structure must be performed. An application phase inspection must be conducted while the licensee is at the site and before the conclusion of the fumigant release in order to be considered a complete inspection.

When the inspection does not include entry into the structure document that information in the report and explain why this was not part of your inspection.

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### **Aeration phase minimum criteria**

The minimum inspection activities that must be performed during the aeration phase are:

- 1) Verify that the structure had been actively ventilated for the minimum required time (see Table 2 of the CAP) prior to the removal of tarpaulins;
- 2) Observe the breaking of the tarpaulin seal and compliance with CAP steps 2 and 3;
- 3) Determine compliance with the records requirements at the site; and
- 4) Determine compliance of all pesticide regulatory and labeling requirements on the inspection form pertaining to the aeration phase. Request the licensee to sign the inspection form at the site.

The only exception to the minimum criteria is when the inspector misses the breaking of the tarpaulin seal. The inspection can still be considered complete if the licensee is at the site and the inspector can perform all of the remaining inspection activities pertaining to this phase.

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**Certification/  
clearing phase  
minimum  
criteria**

The minimum inspection activities that must be performed during the certification/clearing phase are:

1. Be present when the licensee certifies the structure safe for reentry;
2. Verify that the reentry certification has been properly completed;
3. Verify compliance with requirements related to the conditions inside the structure; and
4. Verify the proper posting of the attic and/or basement and request the licensee to sign the inspection form at the site.

**See the table on page 151 for typical inspection requirements for each phase.**

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**Tarpaulin  
inspections**

Tarpaulin inspections, verifying placement of signs, or other inspection activities that do not qualify as complete inspections are considered partial inspections. See Tarp/Aeration Check at the end of this chapter.

Tarpaulin inspections must include verification of compliance with CAP specifications (i.e. number, location and size of inlet and aeration devices and ducting and remote operation of fans). Document compliance with the CAP by adding 3CCR § 6780(b) to the Requirements in the blank space provided.

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## Requirements

**1. Registered in County FAC § 15204.5(a)**

Scope: All structural pest control companies registered with the Structural Pest Control Board (SPCB) and performing structural pest control in the county. This regulation applies to the use of all pesticides as well as non-pesticide methods of pest control.

Determine if the structural pest control company has registered with the agricultural commissioner prior to performing structural pest control for hire in your county. This can be accomplished by reviewing the company's records on file. The registration should cover a calendar year unless the structural pest control company's licensee specifies a shorter time. Branch offices working in your county must also be registered.

Exemptions: None

**2. County Notified 24 Hours Prior** FAC § 15204.5(d)

Scope: All fumigations by registered structural pest control companies.

Has a complete notice been properly submitted at least 24 hours prior to the start of operations stating the date and place the fumigation will take place?

Exemptions: The commissioner may choose to waive the notice requirement.

**3. Written Notice to Occupant** B&P Code § 8538

Scope: All applications of any pesticide by registered structural pest control companies.

The written notice must be provided to the owner/agent at least 48 hours prior to fumigation. If possible, interview the owner or occupant of the structure (house, apartment complex, etc.) and ask to review the written notice. The licensee performing the application may be the only person available. In this case, you should interview the licensee to determine if the notice has been provided. If a Branch 3 company gave the notice, the Branch 1 licensee on site will usually have a copy of it, but may not. In this case, ask the Branch 1 licensee for contact information for the Branch 3 licensee and follow up later by going to their office or requesting by phone that they fax you a copy. See code for required information.

Exemptions: None.

**4. Pesticide Disclosure Signed/Available** 16CCR § 1970.4

Scope: All fumigations by registered Branch 1 structural pest control companies.

The licensee must have, in his or her possession, a signed pesticide disclosure notice at the time the fumigant is released. The occupant(s) or the designated agent must sign the notice. The designated agent of an unoccupied dwelling may be a realtor, property manager, or the person in charge of the property. The owner, manager, or designated agent of multiple-family dwellings is required to obtain signatures and/or verify that the notification was provided to the occupants. The information required to be included in the notice is found in this regulation.

Both the prime and subcontractor shall retain copies of the signed notice(s) for three years. Review the notice with the licensee. Is the disclosure signed by the occupants or a designated agent? Does it contain the required information? If a signed disclosure notice is not available on site prior to the release of the fumigant, stop the fumigation.

Exemptions: The disclosure does not need to be on-site at the commencement of aeration or at the time the structure is certified safe for entry.

## **5. Registered Label Available at Use Site 3CCR § 6602**

Scope: All registered pesticide uses.

Check “N/A” for this requirement when performing aeration or certification phase inspections.

Registered labeling covering the specific use must be available at the use site. Registered labeling includes relevant supplemental labeling. Review the pesticide labeling to see what additional documents are required to be at the use site such as fumigation manuals. Commercial advertising does not comply with the requirements of this regulation, even if it includes use directions.

Labeling at the use site must not differ in any material manner with the labeling registered by DPR. Differences in the directions, restrictions or precautions are not acceptable. Differences in format (i.e. specimen labeling, photocopies, CDs, or photographs) are not normally considered material unless the difference(s) could cause the pesticide to be used in a manner conflicting with the registered labeling or they create a false or misleading perception. If you suspect the labeling is inaccurate, refer the case to your DPR EBL for product compliance investigation.

Exemptions: Exemptions not applicable to this inspection.

## **6. Labeling – Site/Rate/Concentration/Other FAC § 12973**

Scope: All registered pesticide uses.

Review the labeling used and compare to the application activity. This requirement should be used for any violations of labeling found that are not covered by requirement numbers 7, 8 or 9.

Is the application being performed under suitable climatic conditions, utilizing proper application methods and equipment, in compliance with labeled use directions? For example, is the applicator using the correct amount of fumigant gas according to the conditions entered in the Fumiguide calculator? Was a thermometer used to check the temperature? Is the structure sealed appropriately? What are the conditions of the site: Is the soil moist? Were the roof space and cupboards opened?

Verify that there is no source of heat or sparks in the structure. Verify that the natural gas service has been shut off at the main service valve. All electric appliances with heating elements (such as heaters, pianos or organs) should be unplugged. All automatic switch controls for appliances and lights should be disabled since they may spark when activated.

The CAP requires that at least one operable window in each room be open at least three inches. (See the CAP for details and exceptions). Some labeling may read “Open all windows as permitted by local laws and regulations.” This, or similar wording, means that the windows may be closed when required by local regulations. The CAP is a local regulation stemming from 3CCR § 6780(c). Therefore, when fumigating with a product with the language described, the applicator need only comply with the requirements of the CAP.

Exemptions: See 3CCR § 6000 definition of conflict with labeling for exceptions.

## 7. Labeling – Aeration/Certification FAC § 12973

Scope: All registered fumigant uses.

Check N/A when performing an application inspection. When the fumigators are employing the CAP, check N/A when performing an aeration inspection. When the fumigators are employing the CAP, CAP requirements supersede Aeration Procedure 1 and 2 on sulfuryl fluoride labeling. Review the labeling and CAP to determine compliance with certification requirements.

When inspecting an aeration where the CAP is not employed, fumigation crews must comply with labeling and 3CCR § 6780. The conditions of 3CCR § 6780 require that either continuous monitoring or SCBA be utilized when the CAP procedures are not followed. Use of SCBA when working above ground on ladders or rooftops should be evaluated for safety pursuant to 3CCR § 6600(b).

Exemptions: Labeling instructions for aeration are superseded by the CAP requirements.

## 8. Labeling – Bagging, Pets Removed, Etc. FAC § 12973

Scope: All registered fumigant uses.

Check “N/A” for this requirement when performing aeration phase inspections unless you are able to determine the compliance status. **NOTE: This is an exception to the rule of only using “N/A” when the regulation does not apply to the activity inspected.** This exception is allowed due to the difficulty of determining compliance with any degree of certainty during the aeration phase.

Licenses shall follow labeling requirements for the bagging or removal of food and medicines and removal of pets and other items from the fumigation site prior to the introduction of the fumigant. Verify that this is in compliance by doing a walk-through of the structure prior to the introduction of the fumigant or after the structure is certified safe for entry. Are all spaces, (e.g. attic, crawlspace, areas beneath decks and porches and the area between structure and tarp) inspected prior to fumigation?

“Domestic animals, pets” includes animals that belong to the occupant as well as those that do not. The fumigator is responsible to ensure that no pets are in any area enclosed by the tarp prior to introduction of the fumigant.

Sulfuryl fluoride labeling requires that specific types of bags be used when bagging food, feed, drugs or medicines (e.g. Nylofume for Vikane and Fumiguard for Zythor). Consult labeling for allowed bag types. Ordinary plastic bags cannot be substituted. DPR considers medicines to include dental hygiene or similar substances that enter the mouth during use unless specifically exempted by labeling. This would include toothpaste, mouthwash, teeth whiteners and dental

adhesives but not dental appliances such as toothbrushes, teeth whitener trays or false teeth. On March 10, 2010 the revised Vikane applicator manual was approved by DPR exempting dental hygiene products from double-bagging or removal. Fumigators using products without this labeling exemption are required to double-bag or remove dental hygiene products.

The sulfuryl fluoride labeling requires that mattresses and pillows that are enveloped in waterproof covers must be removed or that the covers must be removed. Mattresses include box springs. Newer labeling may allow for covers be opened rather than removed.

If you observe plants or animals (such as aquarium fish or vines growing on the structure) intentionally left inside the structure or tarp, verify that the fumigator has informed the occupant that they will be destroyed.

Exemptions: Food, feed, drugs and medicines if they are in plastic, glass or metal bottles, cans or jars with the original manufacturer's airtight seal intact. (labeling)

## **9. Labeling – Personal Protective Equipment (PPE) FAC § 12973**

Scope: All persons handling registered pesticides.

Observe if the applicator is wearing required eye protection (face-shield or goggles) when introducing the fumigant. Sulfuryl fluoride labeling prohibits the use of gloves or rubber boots. Check methyl bromide labeling for prohibited PPE and clothing.

Labeling PPE requirements apply to both employees and employers. Review the labeling at the site to determine what PPE is required. Observe handlers to see if they are properly utilizing the labeling required PPE. If employee handlers are not wearing required PPE, determine and document if it was provided by the employer and is available on site. Is the PPE in good condition and well fitted? Address each piece of safety equipment separately.

Labeling required PPE used by non-employees (owners, property operators and others) must meet the maintenance and storage standards listed in 3CCR § 6738(a). Although 3CCR § 6700 – 6795 apply only to employees, standards provided in these sections are applicable to interpreting labeling requirements for non-employees as required in 3CCR § 6601 General Application of Standards. See page 6.

Exemptions:

- All substitutions and exemptions listed in 3CCR § 6738 including substitutions listed for closed systems and/or enclosed cabs in 3CCR § 6738(h). See Appendix 1.
- All substitutions and exemptions provided in the CAP. See Appendix 6.

## **10. Regulations – Personal Protective Equipment (PPE) 3CCR § 6738**

Scope: All employees handling any pesticides when:

- Required by labeling or regulation.

- Mixing or loading.
- Cleaning, adjusting or repairing equipment.
- Applying using hand held, vehicle mounted or towed equipment.

Check “NO” for this requirement if any employee is not wearing all of the PPE required by the regulations and the registered pesticide labeling. Document the exact nature and circumstances of the violation. When required, PPE must be worn throughout the handling process.

Respiratory PPE requirements are found in 3CCR § 6739.

If employee handlers are not wearing required PPE, determine and document if it was provided by the employer and is available on site.

All PPE must be cleaned and inspected daily. Worn, damaged or heavily contaminated PPE must be replaced immediately. Check the condition of PPE and ask handlers what procedures they follow for cleaning and replacement. **See Appendix 1 for specific requirements and exemptions.**

## **11. Respiratory Protection 3CCR § 6739**

Scope:

- Employees when required by labeling, permit or regulation or employer policy.
- When employees wear respiratory equipment.

Verify that employees have been provided and are using the appropriate type of respirator as identified on the labeling, permit or regulation (organic vapor, dust/mist filtering, HEPA-only or other) and that the respirator is a National Institute for Occupational Safety and Health (NIOSH) approved respirator. Verify that the equipment is being used properly and has been properly maintained. See more information on respiratory protection in Appendix 1.

Exemptions:

- When performing a structural fumigation utilizing the CAP the use of SCBA is unnecessary unless a person enters a structure where the level of the fumigant is unknown or continuous monitoring shows the fumigant level at or above 1 ppm.
- When respirator use is allowed by the employer even though not required by labeling, permit or regulation, only certain parts of 3CCR § 6739 apply. (See Voluntary respirator provisions in Appendix 1).
- Other exemptions not applicable to this inspection.

## **12. Handler(s) Trained 3CCR § 6724**

Scope: All employees who handle any pesticides.

Certified applicators are considered trained. Employees who are licensed by the SPCB as operators or field representatives are considered trained for the purposes of this regulation. Check “YES” for this requirement if all handlers are certified applicators.

Workers handling tarps prior to the introduction of a fumigant are not considered handlers. Workers handling tarps after the introduction of a fumigant are considered handlers.

Observing a person's work during a fumigation inspection is a good indication of whether that person has been trained. It is a good practice to ask employees about procedures for securing the structure, bagging food, removal of medicine, plants, and pets, etc. Ask the licensees how they:

- Calculate the dosage.
- Use the warning agent.
- Know what type of safety gear to use.

Ask the employees about the timing and content of the pesticide training that they have received. Responses to these questions, as well as the employees' actions, are indicative of an employer's training program.

If the responses you receive and/or the behavior observed causes concern, perform a Headquarter and Employee Safety Inspection to verify the training status of the employee. Consider issuing a cease and desist order for the use activity if unsafe conditions are observed. See the Compliance Action section on page 26 for more information.

Exemptions: Exemptions not applicable to this inspection.

### **13. Emergency Medical Care, Posting 3CCR § 6726**

Scope: All employees handling any pesticides.

Employers are required to post in a prominent place at the work site or on the work vehicle, the name, address, and telephone number of an emergency medical care facility. The employer must have contacted the medical facility and assured that it is capable of handling pesticide exposure illness and injury. For employees that work in a wide geographical area, the employer must also post procedures for obtaining emergency medical care when the listed facility is not reasonably accessible. The local poison control center's number or a supervisor's name with no additional information is inadequate as is the displaying of "911". Medical care information in an employee's wallet or in the glove compartment of the work vehicle does not meet the requirements of this regulation.

Exemptions: Exemptions not applicable to this inspection.

### **14. Decontamination Facility, Site "Danger/Warning" 3CCR § 6734**

Scope: For all pesticides.

- Non-production agriculture and non-agriculture settings - employees handling pesticides with the signal word "DANGER" or "WARNING"

**Contents:**

- Sufficient water and soap
- Sufficient single use towels
- One clean change of coveralls

**Location:**

Non-agricultural and structural settings:

- Within 100 feet of the mixing and loading site.

Decontamination facilities are required on site during the application phase since the concentrate “Danger” pesticide is being loaded when the gas is “shot” into the structure. The facilities are not required to be on site during the aeration or certification phases.

The water must be of a quality and temperature that will not cause illness or injury and be suitable for eye flushing. Water that contains debris or algae is not acceptable. The regulation states there must be sufficient water available at the site. U.S. EPA recommends at least three gallons of water be provided for each handler. The employer should check decontamination supplies periodically and replenish as necessary. Decontamination facilities must be separate from drinking water.

Waterless hand cleaners may be substituted for soap but water must still be provided and used for decontamination. Hand sanitizer products are not acceptable.

Exemptions: Exemptions not applicable to this inspection.

**15. SCBA Worn/Continuous Monitoring/~~TRAP~~ CAP Used 3CCR § 6780(b)**

Scope: Employees involved in fumigations.

Employees entering an unknown atmosphere or one above the PEL must wear self contained breathing apparatus (SCBA). If the alarm bell on an SCBA tank is ringing the wearer must immediately evacuate the unknown atmosphere. Persons performing a structural fumigation do not need to wear SCBA if the aeration procedure is performed according to the CAP and appropriate precautions are taken to prevent exposure. See the CAP in Appendix 7.

Verify that the CAP procedures are followed. Do inlet and aeration devices comply with number, size and location requirements? Do fans and ducting comply with size and location requirements? Has the structure been aerated for the proper duration? Do the employees break down and remove the tarps according to CAP requirements? Is the certified applicator present as required by the CAP?

During tear down and aeration operations following fumigation of a typical residential structure, an overexposure situation to employees may exist. SCBA may not always be practical due to conditions at the work site (such as use on ladders, on rooftops pulling tarps, etc.). For this reason, the employer is given alternative methods of providing for exposure mitigation. One alternative is to employ continuous monitoring to warn employees before the PEL is reached.

Another alternative is to operate under the provisions of a Fumigation Safety Program approved by the director. The only currently approved program is the California Aeration Plan (CAP). The Pest Control Operators of California and DPR established the CAP through a cooperative effort. This Plan is one method that allows the employer to modify the work site to reduce or manage the airborne hazard by means other than requiring employees to wear a SCBA.

The employer must ensure that employees who handle fumigants during introduction, aeration and certification are not exposed above the Permissible Exposure Level (PEL) for airborne contaminants listed in 8CCR § 5155. This requirement serves as a backup to fumigant labeling instructions regarding worker exposure. The labeling of many fumigants have instructions that advise about exposure levels and when respiratory protection is necessary. Ask the licensees how they measure fumigant levels at the work site. If you suspect levels are not being controlled and employees may not be fully protected, ask the licensee to test for fumigant levels or test the working atmosphere yourself to establish exposure in excess of the PEL. If exposure level is unknown or determined to be above the PEL, the employer must provide, and employees must use, air-supplied respiratory protection. For information on PELs go to [http://www.dir.ca.gov/Title8/5155table\\_ac1.html](http://www.dir.ca.gov/Title8/5155table_ac1.html)

Each structure may present unique aeration problems that must be assessed at each work site. Common sense and good practice dictate that when atypical sites are aerated, personnel must rely on additional monitoring and respiratory protection to ensure exposure remains below labeling permitted exposure levels. Contact the Worker Health and Safety Branch if you find a licensee interested in developing, a fumigation safety program. For more information on the CAP, see Appendix 6.

Exemptions: Exemption not applicable to this inspection.

#### **16. Accident Response Plan at Work Site 3CCR § 6780(d)**

Scope: Employees at a fumigant use site.

Check “N/A” when performing an aeration or certification phase inspection unless there is a fumigant container on site.

In the event of an accident or emergency (such as spills, fire, leaks, etc. other than normal operating conditions), the employer shall have an accident response plan at the worksite to protect employees. At least two basic pieces of information should be included in the Accident Response Plan. The first should be information regarding the security of the area where the problem occurred. The second is information on whom to contact in the event of a problem. Contacts may include the operator of the property, fire department, health department or hazardous materials response team.

Emergency information must be in writing, available at the work site, and include emergency phone numbers. This information should also be covered during the routine training required by

regulation. General information on spills and leaks is available on the labeling, and should be referenced in the plan.

Ask the handlers what actions they would take if an accident, leak, etc., occurred. If handlers refer to the appropriate parts of the labeling and produce phone numbers of persons to contact in an emergency, they are probably informed of an Accident Response Plan.

Exemptions: Exemptions not applicable to this inspection.

### **17. Two Trained Employees at Fumigation and Aeration 3CCR § 6782(a)**

Scope: Whenever a fumigant is used in an enclosed space and employees are present.

Two trained persons must be present:

- When the fumigant is introduced.
- The enclosed space is entered to facilitate aeration.
- The enclosed space is entered to determine concentration (certify safe for reentry) and PPE is required.

Are two trained persons present during introduction of the fumigant? Are the employees trained in the use of SCBA equipment and CPR? Generally, two trained persons are not required to be present during the initiation of aeration when utilizing the CAP since no one enters the structure or the certification phase because the licensee does not require PPE when appropriately using a continuous monitoring device.

3CCR § 6782(b) requires that the second employee have access to the PPE required by the labeling to allow safe entry for potential rescue action. This means that a second SCBA must be available on site when entry is made into immediately dangerous to life or health (IDLH) atmospheres. See also 3CCR § 6739(g).

Exemptions: Exemption not applicable to this inspection.

### **18. Fumigation of Enclosed Spaces/Proper Entry 3CCR § 6782(d)**

Scope: Employees at a fumigant use site.

Unprotected employees are prohibited from entering a fumigated enclosed space unless the concentration in the area is known to be at or below the PEL. Employees who are wearing the proper respiratory equipment are allowed to enter a fumigated enclosed space to determine the fumigant concentration or facilitate aeration. Ask the licensee how they determine the fumigant concentration. Is test equipment, such as a Draeger or Interscan, available on site? If you question whether the structure is safe to enter, ask the licensee to take another test in your presence. If the bell is ringing on a SCBA, the wearer must immediately exit the structure.

Check “YES” for this requirement if employees are kept from entering a structure prior to it being certified as safe to enter or are wearing appropriate SCBA. Check “N/A” if there are no employees on site.

Exemptions: Exemption not applicable to this inspection.

**19. Proper Management of Treated Area** 3CCR § 6782(f)

Scope: Employees at a fumigant use site.

After the completion of the fumigation, the treated area shall be managed to prevent employee exposure. How does the licensee prevent anyone from entering the structure prior to it being certified safe to reenter? How is the treated area being managed? What precautions were taken to protect the worker(s) from being exposed to a concentration in excess of the Permissible Exposure Limit (PEL)? If the product labeling has more stringent requirements, make sure the requirements are met.

Exemptions: Exemption not applicable to this inspection.

**20. Connecting Structures** 16CCR § 1970.6

Scope: Structural fumigations.

Verify that the prime contractor asked the owner or designated agent about any construction elements that could allow the fumigant to pass to any adjacent structure. Check the fumigation log to verify that the licensee has conducted a thorough search for any construction elements (e.g. conduits, drains or vacuum systems) that could allow the fumigant to pass to any adjacent structure and documented the findings of the search in the fumigation log.

When any adjacent structure is found to be connected to the structure to be fumigated, the connection must be closed or the connected structure must be vacated and managed as a fumigated structure.

Exemptions: None

**21. Accurate Measurement** 3CCR § 6604

Scope: Weighing or measuring any concentrate pesticides.

Are pesticides being accurately weighed or measured? Is a functioning scale used to measure the fumigant release? Are the measuring devices calibrated to the smallest unit in which the fumigant is being used? When hanging fumigant cylinders for measuring product introduced via a scale, they must be hung safely using a proper sling or modified bonnet.

If the warning agent used is a pesticide, estimating half a container is not an accurate measurement. Examples of improper devices would include an uncalibrated or unmarked container, an empty coffee or soda can, etc. If the warning agent is not a pesticide, use the fumigant labeling (FAC § 12973) to address discrepancies in the amounts used.

Exemptions: Exemption not applicable to this inspection

**22. Protection of Persons/Animals/Property 3CCR § 6614**

Scope: Application of any pesticide.

Has the applicator, prior to and while making the application, evaluated the equipment, weather conditions, and area (both target and surrounding areas) to determine the likelihood of harm or damage as required by this regulation? Your walk-through as described in requirements 8 and 26 should address the requirements of this regulation. Look for animal food bowls, fish tanks, or stored food at the treatment site.

Verify that all spaces within the tarp have been inspected for pets. Have all heat sources been removed? Has the main gas line to the structure been shut off? Have all electric switches been turned off?

Exemptions: Public agencies or their contractors operating under a cooperative agreement with the Department of Public Health pursuant to section 116180 of the Health and Safety Code are exempt from the provisions of 3CCR § 6614(b)(1). (3CCR § 6620)

**23. Structure Vacated/Secured Against Reentry B&P Code § 8505.7**

Scope: Structural fumigations.

The structure to be fumigated must be vacated by all occupants prior to the commencement of fumigation, and all entrances (windows are not considered entrances) to the structure must be locked, barricaded, or otherwise secured against entry until the end of the exposure period. Prior to the introduction of the fumigant, do a walk-through of the structure to verify that it is vacated and adequately secured. After the fumigation, the structure must be opened for ventilation and re-secured against entry until declared safe for re-occupancy by the licensee exercising direct and personal supervision over the fumigation. The warning signs must remain posted until certified safe for re-occupancy.

Prior to fumigation, all outside doors on the structure must be barricaded or secured with a secondary lock. A secondary lock may consist of a padlock, keyway lock, clamshell lock, or any other device that will prevent opening by anyone other than the licensee in charge of the fumigation. Ask the licensee questions about secondary locks (such as what type are available, what do they use in different situations and what do they intend to use on this job). Walk through the structure prior to the introduction of the fumigant, checking all outside doors,

including garage doors and sliding glass doors, for proper secondary locks. The use of staples as a keyway lock is specifically prohibited. See also 16CCR § 1970.3.

Any doorway-sized opening that provides a path of access into the fumigated structure must be barricaded with ¼ inch plywood or material of equivalent strength.

Exemptions:

- Windows are not entrances and do not need to be locked or barricaded.
- A garage or uninhabited structure that has no car door does not need to be barricaded if:
  - It does not provide an entrance to enter an inhabited building and;
  - there is no evidence the garage is being used for human habitation. [16CCR § 1970.3(c)]

#### **24. Equipment in Good Repair and Safe 3CCR § 6742**

Scope: All equipment used by employees to apply or mix and load any pesticides

This is a general safety requirement applicable to all pest control operations and can be used to mitigate an equipment hazard. Pest control equipment should be inspected while in use. This allows you to assess the general safety, condition and operation of equipment. Equipment that is used for pest control must be kept in good repair and must be safe to operate. Does the equipment operate appropriately, does the equipment leak? Check the application equipment in operation to determine if the valves, coupling and hoses are in good condition and not leaking.

Exemptions: None.

#### **25. Safety Kit / 2 SCBA Available 16CCR § 1971**

Scope: Branch 1 structural pest control businesses fumigation crews on a job site.

All Structural fumigation crews are required to have in their possession on the job a fumigation safety kit. Crews shall be instructed in the use and care of the kit and safety equipment and in first aid methods. The kit shall contain the following:

- Instructions published by the fumigant manufacturer.
- Two or more effective SCBA units
- A chart of instructions for artificial resuscitation.

Structural pest control companies are required to have two National Institute of Occupational Safety and Health and Mine Safety Health (NIOSH) Administration approved Self Contained Breathing Apparatus (SCBA) readily available to a fumigating crew whenever a fumigant is released and during the aeration of a structure. Check the pressure gauge on the air tanks. Do they have enough air to complete the job? If not, are extra tanks available? The minimum allowable working pressure is 1500 psig (pounds per square inch gauge). The American National Standards Institutes (ANSI Z88.5 - 1981 6.3.3.1, "Replacement of Used Items") calls

for replacement or refilling of cylinders that are below 80 percent of the pressure stamped on the cylinder.

A licensee must not enter a structure that has not been certified safe to enter if the bell on the SCBA is ringing. If the bell begins ringing when the licensee is in the structure, the licensee must immediately leave the structure and replace the air supply bottle before reentering.

Verify that the crew has a chart of instructions for artificial resuscitation.

Exemption: Two SCBA are not required during the initial opening of inlet and aeration devices according to CAP or the certification phase if the licensee uses a continuous monitoring device and does not enter an enclosed area where the fumigant exceeds the PEL.

## **26. Test Equipment 16CCR § 1971**

Scope: Branch 1 structural pest control businesses fumigation crews on a job site.

This regulation requires fumigation crews to have testing equipment (such as Miran, Interscan or Draeger) capable of measuring the fumigant down to the threshold limit. The requirement to have testing equipment is tied to the pesticide labeling. Review the labeling and determine when testing equipment is needed. Usually testing equipment is needed whenever unprotected persons enter an area where there is an unknown atmosphere. Minimally, the fumigator would need testing equipment when certifying the structure safe to reenter.

Exemptions: The SPCB and DPR interpret this regulation to allow that testing equipment need not be on site when the fumigant is introduced if no one enters the enclosed space. (Guidance)

## **27. Re-entry Requirements 16CCR § 1973**

Scope: Structural fumigations.

A fumigated structure must be aerated and tested prior to certification and posting for reentry. After the aeration, and prior to releasing the structure for occupancy, a Branch 1 licensee (operator or field representative) must properly test the gas concentration of the structure. The licensee must use testing equipment for clearing the structure according to the manufacturer's labeling instructions and all applicable laws and regulations. What type of device does the licensee have to test for completeness of aeration? Is the device adequate (such as Draeger with an appropriate tube for methyl bromide, Interscan for sulfuryl fluoride) to test for the fumigant used? Was it used appropriately? For example, for an Interscan, was it warmed and was the "ready" light on prior to use? If not, the reading will be inaccurate. Were the results below the allowable limits?

When the structure is cleared; the licensee must release the structure for occupancy by posting a Notice of Re-Entry. The Notice must be at least 8.5 x 11 inches in size and be printed in black on a white background. The notice must state the date and time the building is safe for re-entry,

the fumigant and warning agent used the Branch 1 licensee name and number, and the company name, registration number, address and telephone number.

Exemptions: None.

## **28. Direct Supervision B&P Code § 8505.2**

Scope: Structural fumigations.

B&P Code § 8505.2 requires that structural fumigations only be performed under the direct and personal supervision of a Branch 1 operator (OPR) or field representative (FR) licensed by the SPCB. “Direct and personal supervision” means that the licensee responsible for the supervision shall be present at the site of the fumigation during the entire time the fumigants are being released, the time the ventilation is commenced, and at the time property is released for occupancy.

“The time ventilation is commenced”, is defined in 16CCR § 1970.5 as the period of time beginning when the seal is broken and ending when all seals/tarps are removed. The regulation requires that a licensed operator or field representative be present during this entire time.

The use of the CAP renders 16CCR § 1970.5 obsolete and requires that B&P Code § 8505.2 be interpreted to require direct supervision during the entire time the fumigants are being released, throughout the time steps 1 - 4 of the CAP Aeration and Reentry instructions are performed and at the time property is released for occupancy.

When the CAP is not used B&P Code § 8505.2 and 16CCR § 1970.5 must be enforced as written.

Exemptions: When the CAP is used direct supervision is required as described above.

## **29. Warning Signs on All Sides of Structure 16CCR § 1974**

Scope: Structural fumigations.

Prior to commencement of fumigation, fumigation warning signs shall be posted on the structure (under the tarps) at or near all entrances and on each side of the structure. (The signs on the structure must remain posted until the structure is declared safe for re-occupancy). Fumigation warning signs must also be placed on the outside surface of the tarps and be clearly visible on all accessible sides of the space under fumigation and from any direction from which the site is approached. Additional fumigation warning signs shall be posted at all joint seams of the tarp at the first floor level.

Exemptions: None.

**30. Required Information on Warning Signs B&P Code § 8505.10**

Scope: Structural fumigations.

Warning signs shall be printed in red on white background and shall contain the following statement in letters not less than two inches in height: “DANGER--FUMIGATION”. They shall also have a skull and crossbones not less than one inch in height and shall state in letters not less than one half inch in height:

- The name of the fumigant used.
- The date and time the fumigant was introduced into the structure.
- The name, address, and phone number of the registered business performing the fumigation.

Exemptions: Warning signs placed inside a tarp need the date, but not the time of the fumigation.

**31. Signs in Attic or Under-area Upon Completion B&P Code § 8505.11**

Scope: Structural fumigations.

Immediately after completion of the fumigation and certification of the structure, the licensee must post in the attic and in the under-area, adjacent to their entrances, a durable sign no less than 5 x 7 inches in size, stating the company name, the date of fumigation, and the fumigant used. If the structure has only an attic **or** under-area, then posting is only required in that area.

Exemptions: No sign is required in structures that do not have an attic or a crawlspace.

**32. Warning Agent Used B&P Code § 8505.12**

Scope: Structural fumigations.

When a fumigant is used which does not have warning agent properties; a separate warning agent must be used. Both sulfuryl fluoride and methyl bromide fumigations require chloropicrin to be used as the warning agent. When conditions involving abnormal hazards exist, the supervising licensee shall take such safety precautions in addition to those prescribed by regulation as are reasonably necessary to protect the public health and safety.

Verify that the warning agent is used properly. When the chloropicrin is introduced, it must be placed in a shallow dish over cotton or some similar absorbent material and released into the airstream of a fan. The industry recommends that the dish of chloropicrin be placed behind the fan, not in front of the fan.

Registered chloropicrin pesticides used solely as a warning agent are exempt from pesticide use reporting requirements. The following chloropicrin products can be used as a warning agent:

- 1) Registered chloropicrin pesticides that have directions for use as a warning agent.
- 2) Chloropicrin products marketed solely for use as a warning agent.

Exemptions: None.

### **33. Equipment Properly Identified 3CCR § 6630**

Scope: Vehicles (such as trucks, tractors or trailers) used for mixing or applying any pesticides by any agricultural or structural pest control business.

All pest control businesses must identify each vehicle with markings readable at a distance of 25 feet. The identification must include either: (1) the business' name; or (2) the pest control business license number and a statement such as "Licensed Pest Control Operator", "Fumigation Division" or similar wording. Vehicles used only to transport and apply pesticides are not required to have pesticide storage posting per 3CCR § 6674.

A vehicle used by a licensee only for the purpose of certifying a structure safe to enter would not need to be identified since it is not used for mixing or applying a pesticide.

Exemptions: Exemption not applicable to this inspection.

### **34. Pesticide Labeled/Closures 3CCR § 6676**

Scope: Storage and transportation of any container that holds or has held a registered pesticide.

Verify that all pesticide containers carry the registrant's labeling and that all lids or closures are securely tightened.

Exemptions: Exemptions not applicable to this inspection.

### **35. Proper Pesticide Transport 3CCR § 6682**

Scope: All pesticides in vehicles.

Persons should not be riding in the back of a truck used to transport pesticides. Some fumigant labeling requires an upright position and/or chaining during transportation. Violations of this regulation are often found in the storage box of the vehicle. Violations include pesticide containers not secured during transport, spillage of concentrates found in vehicles and storage of pesticides in the same compartment with food, feed or persons. Storage of PPE in the same box with pesticides is a violation of 3CCR § 6738(a).

Exemptions: Exemptions not applicable to this inspection.

### **36. Pesticide Handling/Use/Storage 16CCR § 1983**

Scope: All structural pest control use and storage of any pesticides.

Inspect the fumigation site to determine whether the company has control over pesticide containers and stores them properly. They must:

- Store pesticides, partial and empty containers, in a manner that does not present a hazard to persons or property.
- Handle service kits containing pesticide(s) with extreme caution and prevent access to children and unauthorized persons.
- Lock or attend pesticides stored on trucks.

This requirement should be checked “N/A” only if no containers are present at the inspection site.

“Attended” means a responsible person in the vicinity at all times to maintain control over the pesticide to prevent contact by unauthorized persons. Adjacent to roadways or populated areas, the person must have pesticides in sight.

“Enclosure” means a structure, a lockable storage compartment, a locked, fenced area or a truck or trailer with side racks. The enclosure must prevent entry from all sides. If the enclosure does not have a roof, the sides must be a minimum height of six feet above the ground.

Fumigants must be locked at all times when unattended. For fumigant cylinders, merely closing the bonnet without otherwise locking or securing it is insufficient to meet this requirement.

Exemptions: None.

### **37. Methyl Bromide Requirements 3CCR § 6454**

Scope: Structural fumigations using methyl bromide.

Verify that the distance between the fumigated structure and the property line are in compliance with the formulas provided in 3CCR § 6454(a) and that no person, other than the fumigation crew is allowed to enter the prohibited area during the treatment period.

“Buffer zones” must be established and maintained during the fumigation. The buffer zones must lie entirely within the property line of the property being fumigated. No person, other than the fumigation crew may enter the buffer zone during the treatment period. The buffer zones are:

- Five feet for fumigations using 50 lbs. of MeBr or less.
- For fumigations using between 50 and 80 lbs. MeBr use the formula:  $(5 \times \text{total lbs}) - 240 = \text{buffer zone in feet}$ .
- For fumigation using more than 80 lbs. MeBr use the formula:  $2 \times \text{total pounds} = \text{buffer zone in feet}$ .

Exemptions: None.

**38. Methyl Bromide - Tarps Acceptable/Condition/Retention Method** 3CCR § 6454(b-e)

Scope: Structural fumigations using methyl bromide.

Structures shall be covered with the required tarpaulins or sealed prior to fumigation. The “acceptable” tarpaulin used in fumigations shall be vinyl coated with a minimum weight of seven ounces per square yard (or having a fumigant retention capability equal to or greater than that provided by the seven-ounce weight tarpaulin). The vinyl coating shall not be worn, cracked, abraded, or similarly damaged to the extent that any of the underlying fabric shows through the vinyl coating. All cuts, tears, holes, or similar damage to tarpaulins shall be repaired prior to introduction of the fumigant. Temporary repairs to damaged tarpaulins shall be made with vinyl-coated self-adhesive tape, or the damaged area of the tarpaulin may be rolled and clipped.

Fumigators shall use the fumigant retention method specified in the table in this regulation. Depending on the application rate and total poundage used in the fumigation, the retention method may be an “acceptable” tarpaulin alone; an “acceptable” tarpaulin and a side drape of either an “acceptable” tarpaulin or an unused 4-mil disposable polyethylene sheet; or a seal with vinyl-coated self-adhesive tape, (only if the structure is a concrete tilt-up).

When tarpaulins are used, all sides of the structure shall be draped to the ground. Sand snakes, water snakes, or similar weights shall be used to seal the base of the tarpaulins to the ground. Prior to the placement of these snakes or weights, the soil adjacent to the structure foundation shall be thoroughly watered.

Exemptions: None.

**39. Methyl Bromide - Warning Agents/Fans/Aeration** 3CCR § 6454(f-m)

Scope: Structural fumigations using methyl bromide.

When fumigating a structure with methyl bromide, chloropicrin shall be used as a warning agent unless specifically prohibited by regulations or product labeling. One or more fans must be used to adequately disperse the fumigant. The fumigant must be released into the airstream of a fan. In the case of a multiple-story structure, at least one fan should be placed on the second floor to facilitate dispersion. Prior to the introduction of the fumigant, a walk-through can be performed to check for adequacy of fan placement.

Following treatment, the fumigated structure shall be aerated through convection tubing or ducting. The convection tubing or ducting outlet shall be located above the highest point of the roof as follows:

- 1) Six feet above for fumigations using 50 pounds of methyl bromide or less.
- 2) Ten feet above for fumigations using more than 50 pounds of methyl bromide.

If any nearby structure is taller than the fumigated structure, check the table in 3CCR § 6454(i) for tubing height requirements.

Aeration of the fumigated structure shall not begin earlier than one hour after sunrise or later than one hour before sunset. The sunrise and sunset times published in the local newspaper shall be used to establish aeration timing.

When aerating a fumigated structure, a Branch 1 licensee shall ensure that persons not involved in the aeration process do not come within the buffer zone of:

- Ten feet for fumigations using 50 lbs. or less.
- For fumigations using between 50 and 80 lbs. MeBr use the formula – (5 X total lbs) – 240 = buffer zone in feet.
- For fumigation using more than 80 lbs. MeBr use the formula – 2 X total pounds = buffer zone in feet.

Exhaust fans and convection tubing or ducting may be installed prior to aeration or when covering the structure with tarpaulins in preparation for fumigation. Aeration should be performed according to the CAP. The exhaust fans must have a capacity of at least 5,000 cubic feet per minute (cfm). The convection tubing shall be large enough to fit over the exhaust fan housing and shall be securely attached. The exhaust fans and tubing shall be installed in a manner that does not present a hazard to workers or the public. If exhaust fans and convection tubing or ducting are installed after the fumigation has begun, the installer shall wear self-contained breathing apparatus (SCBA) respiratory protection.

Exemptions: None.

#### **40. Methyl Bromide – Measuring Concentration 3CCR § 6454(n)**

Scope: All structural fumigations using methyl bromide.

The methyl bromide concentration shall be measured at the approximate center of the structure with a Fumiscope®, or similar instrument, that shall be located outside of the fumigated structure. (An instrument similar to a Fumiscope® may be used provided it can measure methyl bromide concentrations at the one ounce per 1,000 cubic feet or 250 ppm level). Without entering the structure, the fumigator shall collect the methyl bromide sample for measurement through the use of tubing or ducting placed inside the structure and connected to the analytical instrument prior to the initiation of fumigation. The structure shall be aerated until the methyl bromide concentration has been reduced to 250 ppm or less (250 ppm is about one ounce per thousand cubic feet) while following the requirements listed below:

- 1) If the fumigated structure's windows were left open during the fumigation, the structure shall be aerated through convection tubing or ducting until the methyl bromide concentration is 250 ppm or less with the tarpaulins left in place; or
- 2) If the fumigated structure's windows were closed during the fumigation, the space between the fumigated structure and the tarpaulin shall be aerated prior to tarpaulin removal through convection tubing or ducting. After the tarpaulins are removed, the fumigated structure shall be aerated through convection tubing or ducting until the methyl bromide concentration is 250 ppm or less.

Exemptions: None.

## Tarp / Aeration Check

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**Purpose** This type of inspection does not constitute a complete inspection and cannot be counted on the PRAMR (PR-ENF-099). Check the “Partial” box at the top of the form.

This section is only to be used for documenting unattended aerations or tarp checks of a structure under fumigation or under aeration. There are three phases of fumigation: application, aeration and certification. You should complete this section of the form only if you inspect the structure under fumigation or under aeration after the fumigation crew has left. Since no one is present to acknowledge your inspection during these times, you do not need a signature in the “Inspection Acknowledged” box. The time spent conducting partial inspection activities should be reported in “Section III. Structural Pest Control Inspections, Licensed Work Hours” on the PRAMR.

### Requirements

1. **Registered in County** FAC § 15204  
See Requirement 1, Structural Fumigation Procedures.
2. **County Notified 24 Hours Prior** B&P Code § 8505.5  
See Requirement 2, Structural Fumigation Procedures.
3. **Labeling – Aeration/Certification** FAC § 12973  
See Requirement 7, Structural Fumigation Procedures.
4. **Warning Signs on All Sides** 16CCR § 1974  
See Requirement 29, Structural Fumigation Procedures.
5. **Structure Vacated/Secured Against Reentry** B&P Code § 8505.7  
See Requirement 23, Structural Fumigation Procedures. This requirement should be marked “N/A” if the tarps are still up.
6. **Required Information on Warning Signs** B&P Code § 8505.10  
See Requirement 30, Structural Fumigation Procedures.
7. **SCBA Worn/Continuous Monitoring/CAP Used** 3CCR § 6780(b)  
Add this requirement in the space provided at the bottom of the inspection Requirements section. See Requirement 15 Structural Fumigation Procedures

The table below identifies the requirements from the Structural Fumigation Use Monitoring Inspection Report that would typically be inspected during the fumigation phases listed.

<b>Requirement</b>	<b>Application</b>	<b>Aeration</b>	<b>Certification</b>
1. Registered in County	X	X	X
2. County Notified 24 Hours Prior	X	X	X
3. Written Notice to Occupant	X		
4. Pesticide Disclosure Signed	X		
5. Registered Label at Use Site	X		
6. Labeling-Site/Rate/Conc./Other	X		
7. Labeling-Aeration/Certification		X*	X
8. Labeling-Bagging, Pets Removed	X		X
9. Labeling-PPE	X		
10. Regulations-PPE	X		
11. Respiratory Protection	X		
12. Handlers Trained	X	X	
13. Emergency Medical Care Posting	X	X	
14. Decontamination Facility	X		
15. SCBA Worn/Cont. Monit./CAP	X	X	X
16. Accident Response Plan	X		
17. 2 Trained Employees-App./Aerat.	X	X	
18. Fume Enc. Spaces/Proper Entry	X	X	X
19. Proper Mgmt. of Treated Area	X	X	X
20. Connecting Structures	X	X	X
21. Accurate Measurement	X		
22. Prot. Persons/Animals/Property	X		
23. Structure Vacated/Secured	X	X	X
24. Equip. in Good Repair and Safe	X		
25. 2 SCBA/CPR Chart/Mfg. Instruc.	X	X	
26. Test Equipment			X
27. Re-Entry Requirements			X
28. Direct Supervision	X	X	X
29. Warning Signs All Sides	X	X	X
30. Req. Info on Warning Signs	X	X	X
31. Signs-Attic/Under Area			X
32. Warning Agent Used	X		
33. Equipment Properly Identified	X		
34. Containers Labeled/Closures	X		
35. Proper Pesticide Transport	X		
36. Pesticide Handling/Use/Storage	X		
37. Methyl Bromide Requirements	X	X	X
38. MB- Tarps-Cond./Ret. Method	X	X	
39. MB-Warning Agents/Fans/Aerat.	X	X	
40. MB-Measuring Concentration		X	

\* This requirement is applicable to the aeration of Fumigations not employing the CAP.

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