

## K. METAM SODIUM/METAM POTASSIUM

These permit conditions pertain to shank injection, sprinkler, rotary tiller, flood and drip applications of metam-sodium and potassium N-methyldithiocarbamate (metam-potassium) in Stanislaus County.

Requirements are outlined in topic sections as follows:

Section	Topic
1	All Application Blocks
2	Monitoring Requirements
3	Specific Application Blocks
4	Definitions

**SECTION 1:** The conditions in Section 1 apply to **all application blocks**.

- A. Notice of intent (NOI) shall **specify the method of application** to be used (shank injection, sprinkler, rotary tiller, flood or drip). NOI is required a minimum of **48hrs prior** to start of application. A **detailed map** is required to be submitted with the NOI, showing distances to sensitive sites and occupied structures within 1,500 feet of the treatment area.
- B. Applications **within 200 ft of a sensitive site require a mandatory pre-application site inspection** by Agricultural Commissioner staff and the application shall not proceed until approval is received by the permittee [or Pest Control Business (PCB)].
- C. The permittee shall be responsible for ensuring compliance with permit conditions specified by the commissioner, pursuant to Title 3, California Code of Regulations Section 6426(b). When applied by a PCB, the permittee shall provide a copy of the permit conditions to the PCB prior to the application. The PCB shall comply with all application requirements.
- D. Users shall comply with the provisions of the Food and Agricultural Code and Title 3 of the California Code of Regulations, the product label including the Technical Information Bulletin (TIB), and permit conditions. Copies of the TIB may be obtained from your pest control dealer or on the Internet at [www.metampsc.com](http://www.metampsc.com). **Where requirements differ, users shall always follow the more restrictive conditions.**
- E. Observe all applicable requirements to minimize off-site movement when applying metam-sodium or potassium N-methyldithiocarbamate (metam-potassium) products.
- F. Climatic conditions, including the absence of an “inversion” shall be suitable for commencement and continuation of each application.
- G. Mitigation of off-site movement.
  1. Whenever irrigation equipment is required, the equipment shall be in place prior to the commencement of the application.
  2. Whenever irrigation equipment is required and mitigation of off-site movement is necessary, a minimum of ½ inch of water shall be applied, started immediately and completed within four hours.
  3. Water delivery system capacity shall meet or exceed the specifications of the TIB, product label, and permit conditions.
- H. Applications are **prohibited if a school in session is within ¼ mile of the application**. Applications with schools within ¼ mile shall be completed 24 hours prior to start of school.
- I. At least one member of the application crew shall remain on site throughout the application process, including sealing (irrigating).
- J. Do not apply metam sodium or metam potassium when soil temperatures exceed 90°F at a depth of 3 inches. (per TIB)
- K. For applications when **air temperature is expected to exceed 100°F** (during any part of the application and post application monitoring time requirement), the following is required:
  1. Mandatory pre-application evaluation/inspection by Agricultural Commissioner staff
  2. Permittee or PCB receive **confirmed approval from the Agricultural Commissioner staff** that application may commence
  3. **Irrigation system** readily available (in place), with the **capability to cover the entire application site** (the acres per day should not exceed the capacity of the available water delivery system to apply a minimum of ¼-inch per hour of water concurrently to the entire surface applied on that day)
  4. Soil temperature and soil moisture readings to 3-inches are required

**SECTION 2:** Monitoring is required for all applications within 1,500 feet of a sensitive site or occupied structure. These are in addition to any applicable requirements in Section 1.

A. Field monitoring.

1. During **all applications**, monitoring shall be conducted on an hourly basis and a **record** of the following application information maintained when applied within 1,500 feet of a sensitive site or occupied structure:
  - a. Date of application
  - b. Date and time of the field monitoring
  - c. Wind speed
  - d. Wind direction
  - e. Temperature (air and soil)
  - f. Odor detected (yes or no)
  - g. Application start and stop time
  - h. Method of application
  - i. Grower's name
  - j. Permit number
  - k. Field location/site number
  - l. Number of acres treated
  - m. Soil moisture (% field capacity)
2. During **sprinkler applications**, the following shall also be recorded:
  - a. Irrigation set number
  - b. Irrigation rate (inch/hour)
  - c. Water pressure (psi)
  - d. Nozzle size
3. **Post-application** field monitoring shall be conducted every 2 hours for a minimum of 12 hours after the application has ceased. This monitoring shall consist of a thorough inspection of the entire treatment area and be conducted by a person not involved in the application process so that a "**fresh nose**" is making this critical determination. Post-application monitoring includes documentation of the following information:
  - a. Date and time of field monitoring
  - b. Observations (changes in weather conditions, etc.)
  - c. Odor detected (yes or no)
  - d. Irrigation, when required, including the date, time and duration, comments or observations, and the amount of water (inches).
4. Each field monitoring and post-application monitoring record shall be maintained by the permittee for a minimum of six months and made available to the commissioner upon request.

**SECTION 3: Specific Application Blocks**

A. Shank injection or rotary tiller applications near sensitive sites.

1. A minimum buffer zone of 500 feet shall be required for all applications that exceed 64 pounds of active ingredients per acre. The commissioner may increase the buffer zone based upon site evaluation. However, the buffer zone shall not be decreased.
2. When applying to multiple blocks, subsequent applications shall move away from the sensitive site, unless expressly allowed by permit conditions.
3. Within 1,000 feet of sensitive sites, operational sprinkler irrigation equipment shall be in place whenever the rate exceeds 64 pounds of active ingredients per acre.
4. Field equipment shall meet the following minimum specifications:
  - a. Dry disconnect fittings (closed system transfer) shall be installed on all tanks and equipment.
  - b. Each tractor saddle tank shall be equipped with a minimum size #50 mesh screen on both the fill and discharge outlets.
  - c. Main line shutoff or by-pass valves shall be used to stop flow to the distribution manifold.
  - d. All systems shall be equipped with an individual shank monitoring system to detect flow problems in each individual shank.
  - e. Dual check valves shall be installed on each outlet between the manifold and as close as possible to the discharge point.
  - f. All components of the delivery system normally below ground shall be metal and suitable for use as provided on the product label.

B. Sprinkler applications near sensitive sites.

1. A minimum buffer zone of 500 feet from the sensitive site shall be required. The commissioner may increase the buffer zone based upon site evaluation. However, the buffer zone shall not be decreased.
2. When applying to multiple blocks, application blocks shall move away from the sensitive site, unless expressly allowed by permit conditions.

3. The product shall be applied evenly over a minimum of 4 hours and in a minimum of 0.80 inch of water.
  4. After the application is completed, a minimum of ½ inch of water shall be applied, started immediately and completed within four hours.
  5. The Busan 1180 label prohibits all sprinkler applications.
- C. Flood application:
1. Near sensitive sites, flood water shall be available during the post application monitoring period in an amount sufficient to provide at least one inch of water over the application block.
  2. Metam sodium or metam potassium shall not be injected into irrigation delivery systems which are not fully under the control of the permittee.
  3. Protective measures shall be used which prevents backflow of metam sodium or metam potassium into irrigation systems. It shall consist of air-gap separation, reduced pressure principle backflow prevention device, double check valve assembly, or equivalent.
- D. Drip application:
1. Protective measures shall be used which prevent backflow of metam sodium or metam potassium into irrigation systems.
  2. If application is within 200 ft of a sensitive site or occupied structure:
    - a. Tarping is required of the treatment area (if bed application, bed is required to be tarped).
    - b. Additional water shall be available for irrigation until completion of post application monitoring
    - c. A minimum 50 ft buffer shall be maintained between the edge of the treated field and property line of the sensitive site or occupied structure
    - d. A maximum of 5 acres shall be treated per application
  3. Application is limited to 20 acres/day (except as listed above in D. 2.) if a sensitive site or occupied structure is within 500 ft. Additional water shall be available for irrigation until completion of post application monitoring
  4. Additional water shall be available for irrigation until completion of post application monitoring for all other drip applications

#### SECTION 4: Definitions

- A. **Application block** - means a field or portion of a field treated in a 24-hour period that is typically identified by visible indicator, maps, or other means.
- B. **Applicator** - the person or firm that physically makes the application. Includes growers and pest control businesses.
- C. **Irrigating** - applying additional water to the application block. (Previously referred to as **water-sealing**, **water-capping**, or **water-layering**)
- D. **Monitoring** - shall consist of a thorough inspection of the entire treatment area.
- E. **Sensitive site** - is designated as schools, churches, residential areas, labor camps, hospitals, convalescent homes, apartment complexes, motels, businesses, day care centers and any other sensitive areas designated by the Commissioner.
- F. **School in Session** - school in session shall be those times when students are attending scheduled classes.
- G. **Occupied Structure** – does not include buildings where people may work for limited periods of time, such as barns, equipment sheds, pump houses and workshops.