



**ARCADIA FIRE DEPARTMENT
STANDARD OPERATING GUIDELINE**

RESPONSE TO BEE INCIDENTS

Number: 116
Revision Date: 11/08/2012
File Name: Bee Response

Review Date: 03/25/2017

Approved: _____
Michael E. Lang, Fire Chief

PURPOSE

To establish procedures for the safety of emergency personnel that may be involved in or respond to Africanized Honeybee (AHB) incidents, including the possibility of anaphylactic shock in victims.

BACKGROUND

When the African Honeybees originally arrived in North America, their wingspan was a little larger than the wingspan of our local bee population. Since the arrival of the AHB's, the local bee population had inbred with the AHB's creating a new standard and consistent wingspan for all bees. The only true way to determine an AHB is to do DNA testing on the actual bee. According to San Gabriel Valley Mosquito & Vector Control District, all bee responses should be considered an AHB response.

The District no longer removes swarms of bees – these are transitory groups of bees that are often reported as clustered on a wall or hanging from a tree branch. These bees do not have a nest (honey comb) to defend, will often move on within a few days, and are not aggressive unless physically provoked. Urge residents to leave them alone and give them the opportunity to leave the area. Those wishing to have them removed immediately can contact a private pest control operator or bee keeper (there is a charge for these services.)

PROCEDURE

- I. Response
 - A. A medical response to an AHB incident (multiple stings from flying insects) shall include one engine and one rescue ambulance.
 - B. Personnel shall establish an exclusion zone of a minimum of 300 feet around the insects. All civilians that are not in buildings or vehicles shall be moved to a safe refuge area. Civilians in homes/buildings within the exclusion zone should remain inside with windows, doors and vents closed.
 - C. As of April 24, 2009, San Gabriel Valley Mosquito & Vector Control District has refocused their priorities and staffing to concentrate their resources on the most pressing public healthy concern – controlling mosquitoes and reducing the risk of human disease.
- II. Bees Reported Outside: This includes beehives, flying and or swarming.
 1. Single Engine response, Code 2.

2. Requests to remove Bee NESTS on **residential property** (established colonies in tree cavities or thick vegetation) will be placed on a waiting list in the order received and responded to as time permits. The District is not licensed to handle structural pest control problems, thus bees nesting inside wall spaces, attics, and other man-made structures must be removed by a private pest control company. In these situations, please refer residents to the yellow pages under “bee removal” or “pest control”.
3. Bees nesting in a **public place** (parks, schools, hospital grounds, etc) will still be handled as a priority and responded to as soon as possible.
4. *If immediate action is necessary*, foam the bees with 1% solution of either class A foam. Consider contacting contact city contracted pest control company and Arcadia Public Works to respond to assist with clean up.

II. Bees Reported Inside A Structure Or On A Structure:

1. Single Engine response, Code 2.
2. Evaluate the situation and assist occupants in reducing exposure to bees.
On private property inside or on a structure, San Gabriel Valley Mosquito & Vector Control District will not respond. In these situations, please refer residents to the yellow pages under “bee removal” or “pest control”.
On City property inside or on a structure, San Gabriel Valley Mosquito & Vector Control District will not respond, contact city contracted pest control company.

Phone Numbers

San Gabriel Valley Mosquito & Vector Control District
(626) 814-9466 Monday-Friday 7:00am – 3:30pm

III. Standard Procedure

- A. When responding personnel encounter an active swarm of bees stinging a victim, the following shall be done:
 1. Stop one block from the incident. All personnel shall donn full protective clothing including turnout pants, coat, helmet, gloves and rescue bee veil. Pant cuffs, coat sleeves, collars and front of coat along the snaps shall be taped securely against the body with duct tape for additional protection. The bottom of the turnout coat shall also be taped.
 2. All personnel not immediately involved with the rescue should seek refuge in an enclosed vehicle or structure.

3. Place a 1½” hose line in service. The nozzle should be on a wide fog spray and directed to drive the insects away from the victim. The fog spray should be directed 30 feet into the air and back down to the ground in circular motions. If possible, place a second 1½ ” hose line with fog nozzle for additional protection and continue fog spray until rescue personnel are in a safe refuge area.
4. Water should drive the bees away and temporarily immobilize them for a short time, but they will recover and continue to attack.
5. A 1% solution of either Class A or AFFF foam sprayed on AHB’s is sufficient to immediately immobilize the bees for an indefinite period of time.

IV. Special Situations

A. No Protective Equipment

When personnel encounter flying, stinging insects, without a protective hose line or safe refuge area, they should retreat from the area, running in a zig zag pattern. Cover the eyes, nose and mouth, as bees prefer to sting in these areas.

1. Do not attempt to hide in trees or brush.
2. AHB that are in a defensive mode around their hives will pursue potential threats from humans or animals up to ¼ mile from their hive. Defensive AHB’s may become offensive from vibrations, loud noises and similar disturbances, e.g. sirens.
3. Jumping into water is of little protection. AHB will remain in the area for ½ hour or longer.

B. Wildland

When personnel encounter either active or inactive swarms of bees in the wildland without a protective hose line, safe refuge area or full turnout gear, they should don the wildland veil and retreat rapidly from the area. If possible, air drops with foam or retardant may be effective in killing and/or disorienting AHB and allow potential victims to escape to a safe refuge area.

1. Wildland veils are to be worn over the helmet, with the pull string pulled snug around the neck. Ensure brush coat collars are up and Velcro secure. This will protect the neck and face. An insect veil is a lightweight piece of fabric worn over the head and neck region to reduce exposure to bee stings.
2. Wildland protective clothing must be tucked in and all openings wrapped securely against the body. This will prevent entry of flying, stinging insects.

C. Special Considerations

The District will no longer assist Fire Department personnel with clean-up of bees sprayed with foam on residential or public property. Dead bees can be disposed of in regular trash cans. Consider requesting Public Works to assist with clean up and disposal when needed.

In smaller, less active situations, using a shop vacuum with a couple of Tablespoons of corn starch inside the shop vacuum prior to use will immobilize live bees indefinitely and then can be disposed of in the trash.

V. Wildland Rescue

- A. Personnel with full wildland protective clothing, wildland veils donned and openings of clothing wrapped securely against the body shall perform rescues involving flying, stinging insects.
- B. All personnel not involved with the rescue shall seek shelter by moving to a safe refuge.
- C. Victims shall be quickly covered with a fire shelter or blanket for protection.
- D. Victims shall be moved to a safe refuge area as soon as possible.

VI. Medical Aid

All BLS providers shall follow the procedures outlined below in the treatment of poisonous stings.

1. Perform primary patient survey.
2. Ensure adequate airway using oropharyngeal or nasal pharyngeal airway if necessary.
3. Administer oxygen at 4-6 liters per minute by nasal cannula if no respiratory distress is noted.
4. Perform a secondary patient survey taking note of any sting marks, welts, hives, or associated injuries. Assess for localized systemic reaction to the bee stings.
5. Remove stinger as soon as possible by scraping or flicking it by using a fingernail or credit card. Never pinch or otherwise attempt to pull the stingers out because the venom sac will continue to pump venom into the victim.
6. Remove the victim's outer layer of clothing to assist in dislodging stingers.

7. Apply cold packs to affected areas.
8. Place patient in a position of comfort, minimizing the patient's activity. Monitor vital signs at least every ten minutes.
9. Transport patient to closest emergency facility.

VII. Acute Allergic Reaction and Anaphylactic Shock

In the treatment of acute allergic reaction and anaphylactic shock, follow the above BLS guidelines. ALS assessment by paramedics may include:

1. Administration of epinephrine.
2. Two (2) large bore IV's or normal saline, wide open.
3. Transport Code 3.