

NATF Redacted Operating Experience Report

Safety – Bee Attack on Line Crew

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Topic

Bee Attack on Line Crew

Description

In September 2015, a line maintenance crew was attacked by assumed Africanized honey bees while working out of bucket trucks. That morning the crew members performed a tailboard session to discuss the job tasks for the day, associated hazards, controls to be used, emergency information, grounding plan, and other pertinent information to the job.

Prior to working on the frame, the crew always performs a scan of the structure looking for bees and wasps that are common on transmission structures. The crew searched for bees/wasps flying around a centralized location, visible nests, hives, residue, and any other noticeable signs. The crew did not see any signs of bees or wasps on the structure to be repaired. Crew members were setting up the equipotential grounding zone (EPZ) to begin removal and replacement of a cracked arm.

Employee 1 (EMP1) and employee 2 (EMP2) were in the process of installing temporary protective grounds (TPGs) on all three conductors. Employee 3 (EMP3) was alone in the bucket preparing to attach the jib from his bucket to support the conductor in preparation for removing the arm after the grounds had all been installed. The crew leader (EMP4) was on the ground supervising operations along with two other employees (EMP5, EMP6) providing ground support.

EMP1 and EMP2 had already installed TPGs on two of the three phases. The third phase is located on the opposite side of the structure. The T-handle of the TPG for the third phase was in the process of being attached to the steel pole, which agitated the bees. The clamp end of the TPG was not yet attached to the conductor. EMPs 1 and 2 noticed the bees and started swinging clear when the clamp portion of the ground slipped out of the bucket and slapped the steel pole causing a loud ringing sound and vibrations on the structure. The sound and vibration caused an unknown beehive, which was in the hollow portion of the arm, to swarm the employees. EMPs 1 and 2 fell to the bottom of the basket to cover themselves and in doing so temporarily disabled the upper controls on the bucket.

EMP5 jumped up onto the back of the truck and used the lower controls to swing the bucket clear of the phase. EMP5 was then attacked by bees and EMPs 1 and 2 finished lowering themselves to the cradle of the truck. EMP3 also moved to the bottom of the basket while being attacked but was able to lower himself to the cradle on the truck. EMP4 and EMP6 were actively looking for some bee spray. EMP6 located bee spray but was unable to get it to the EMP3. EMP6 then attempted to enter his vehicle to escape the bees but due to the doors being left open the cab was filled with bees. EMP6 then escaped the bees by running down the road and past the next structure. EMP1 was able to jump to the ground after the bucket was lowered and took cover with EMP4 in his vehicle. EMP2 exited the bucket and temporarily took cover in EMP6's vehicle before exiting due to bees in the cab and ran down the road and past the next structure, approximately 200+ yards. EMP3 was able to exit his basket and take cover in the cab of his bucket truck. EMP5 also ran down the road past next structure.

EMP1 suffered 100-200 stings on the head, neck, ears, face, arms, and torso; was transported to an urgent-care facility; and received a prescription for nausea. EMP1 was restricted from work. EMP2 suffered 100+ stings on the head, neck, ears, face, arms, and torso. EMP3 suffered 100+ stings on the head, neck, ears, face, and torso; was transported to urgent care; and received a prescription for nausea. EMP3 was also restricted from work. EMP5 suffered several stings on the head, neck, and torso. A crew member called 911 due to an allergic reaction from EMP5. After preliminary check-up by medics, EMP5 was transported to urgent care by ambulance and received a dose from an EPI pen. EMP5 was released at 100% to perform work the same day. EMP4 suffered several stings to the head, neck and face. EMP6 did not receive any stings.

Lessons Learned

1. Employees had never experienced this type of emergency and were not prepared.
2. Escape plan or personal protective equipment (PPE) was not identified to mitigate bee contact since no bees had been identified in the area.
3. Aerosol bee retardant was onsite but not in bucket (testing with this retardant after this event occurred resulted in learning that it would not repel these particular bees).
4. Employee was found to be allergic to bees, which was not known prior to this event.
5. People that have been stung may have reactions several hours after the event.

Actions Taken

- Line-maintenance employees were provided with full bee suits to wear in areas where Africanized bees are present.
- Other employees that work on a right-of-way that may encounter Africanized bees were provided with firefighter-style bee hoods that fit over the hardhat and are kept on person in a small pouch so they are quickly accessible.
- Field personnel were provided with Africanized honey bee awareness training, which was a PowerPoint presentation provided by the University of Florida.

Extent of Condition

Line-maintenance personnel have encountered aggressive bees in several other locations since the initial attack. They have been successful in applying the PPE (bee suits), and no employees have been stung since the initial event.

The awareness training has been extremely helpful, which provided our employees with the knowledge of knowing how to react if they encounter Africanized honey bees in the work location and where to look for these types of bees.