MEMO

To: District Office Supervisors, Health Care
From: Pat Slaughter
Subject: Sprinkler Operations/Mud Dobbers
Date: January 29, 1999

Attached is an article regarding the serious effect of Mud Dobbers on Sprinkler System Operations.

Please distribute this to all your Inspectors so that they can be alert to this problem.
Mud Dobbers Negatively Affect Sprinkler System Operation

Inspectors Must Be Aware of Insects’ Habits

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Across the southern United States, the specidae (mud dobber) builds its home wherever it can attach its cement-like nest material and not be disturbed. During the summer of 1998 mud dobbers built their nests on several sprinklers at the Rock-Tenn Paper Recycling Plant in Tucker, GA. The sprinklers were part of a dry pipe system that protected a paper shredding and baling operation, including a warehouse.

Those nests went unnoticed until September 1, 1998, when a spark from metal trash in the shredder ignited the dust and fine paper particles during normal working hours. The fire rapidly traveled up the conveyor to the baler before the conveyor system could be shut down. Thirty-six sprinklers fused, but because of the insects’ cement-like material caked around the sprinkler linkage, two of the sprinklers that fused did not operate. These two sprinklers were right over the fire. The rest of the sprinkler system did operate and had nearly extinguished the fire by the time the fire department arrived.

Without knowing the exact sequence of operation, it would be very difficult to determine the water pressure at these two sprinklers at the time they fused; but the static pressure on this system is 70 PSI and during a two-inch drain test the residual pressure dropped to 60 PSI.

The building is an old wood structure. The good news is that the sprinkler system prevented major structural damage and kept the conveyor damage to a minimum.

There may be no way to prevent the mud dobbers from doing what comes naturally, but sprinkler inspectors must be aware that there is a possibility these and perhaps other insects could build nests in sprinklers.

(Left) A sprinkler that fused but did not operate, because it was plugged with the nest of a mud dobber. (Right) A similar sprinkler without the mud dobber’s nest.

Diagram of area where fire occurred in Rock-Tenn Paper Recycling Plant.