

Iowa Farmer Today

Anhydrous injury survivors share stories

By Stephanie Leonard

Apr 9, 2015



Craig Boot wears unvented safety goggles and rubber gloves while opening a tank valve to start pulling anhydrous.

Photo by Stephanie Leonard



Paul Vande Noord, left, is grateful for the help he's received from friends like Craig Boot following his anhydrous exposure.

Photos by Stephanie Leonard

This year, Craig Boot is applying his friend Paul Vande Noord's anhydrous. Vande Noord, 71, of Pella, is still recovering from severe eye injuries he sustained last April when he was sprayed with anhydrous.

The incident occurred while he was replacing a bolt that was missing from the breakaway bracket of a rented toolbar.

"We'd just started running (anhydrous) that day," Vande Noord said. "When I was going over everything, I noticed a hose on the ground. Then, I saw the bolt was gone that connected the right quick connect coupler bracket to the tool bar swivel bracket."

As he lifted the hose to put the bolt in the brackets at eye level, the coupler sections separated, spraying both his eyes with anhydrous.

"It knocked me down to the front wheel of the tank rig," Vande Noord said. "My eyes were burning; my eyelids were frozen shut; I couldn't see. I felt my way back to the emergency water supply on the nurse tank and pulled on the hose, but it cracked and broke. There was no water in it."

Vande Noord managed to make it back to his pickup where he had a half bottle of water left over from lunch. He poured it in his eyes and drove himself a half-mile to a neighbor's, feeling his way along a windrow left by the road grader.

He estimates a critical 15 minutes had elapsed in the time it took to get to the neighbor's before they could start flushing his eyes. His neighbor drove him to the Pella ER.

Vande Noord described the pain: “My foot was crushed in an accident in 2005. That pain didn’t even compare to the burning pain in my eyes.”

He spent a week at University of Iowa Hospitals and Clinics.

“I wasn’t able to open my eyes for a month and a half, . . . but we had to open them several times a day to put medicine in them,” he said. His wife, June, was at his side continually for two months.

A year later, he has not regained full vision.

“I’ve only recently been able to see well enough to start working in my shop,” he said. “My eyes still bother me a lot and I can’t take sunlight, dust, chemicals or wind. It bothers me to drive. But I had a good nurse,” he nodded toward June.

“I know I was lucky. I could have been killed,” he said, referring to the “accident near Pilot Mound.”

Mike Shaw, 58, of Ogden, survived the anhydrous release that killed his father in that accident.

In October 2011, he and his dad, Dick, were putting anhydrous on rented ground near Pilot Mound.

Dick got started early on Oct. 29, pulling tandem 1,000-gallon tanks while Mike went to town to get another tank.

“I was on my way back to the field with the tank, and I could see the cloud from a mile away,” Shaw said. He tried to radio his dad but couldn’t get any answer. Shaw called 911 and family members.

Upon arriving at the field, he drove partway into the cloud to locate the tractor. Even inside the truck, the vapor was noxious, and he had to back out.

He parked, turned up the radio and gulped water before going about 35 yards into the cloud, eventually finding the back tire of the anhydrous rig. He felt his way to the shut-off valve on one tank, stumbled out toward the truck radio, and then went back a second time to close the shut-off valve on the second tank.

His third and fourth attempts were to move the still-running tractor clear from the cloud and closer to where firefighters and emergency responders had gathered along the road a half-mile away. His dad was unresponsive.

Mike recounted how he felt unable to breathe and was completely contaminated with anhydrous. His lungs were burning and his skin felt like it was freezing.

Mike was airlifted to Des Moines. He learned two of the paramedics who treated him had also been admitted with anhydrous injuries from exposure to his own clothing and skin.

“My doctor told me, ‘You probably shouldn’t be here, and none of us can explain it,’ ” he said, referring to surviving the release that fatally injured his dad.

Like Paul Vande Noord, Mike Shaw avoids anhydrous exposure and hires his application done now. Both farmers are emphatic about anhydrous safety.

“People always need to be aware of the wind direction and stay upwind in the event of a release,” Shaw said. “You have to think ahead for your plan of escape if a release would occur.”

“Even if you’re doing simple maintenance, make sure to wear protective equipment and have a water supply with you,” Vande Noord added.

Stephanie Leonard is an industrial hygienist and director of the Iowa Fatality Assessment and Control Evaluation Program (Iowa FACE) at The University of Iowa Department of Occupational and Environmental Health. Contact her at 319-335-4611 or email stephanie-leonard@uiowa.edu.

