## Case 428. 55-year-old dairy farmer died when he lost consciousness and drowned in liquid manure in a manure pit.

A 55-year-old male dairy farmer died when he lost consciousness and drowned in liquid manure in a pit housing the manure pump. Heat exhaustion was identified as an "other significant condition contributing to the death but not resulting in the underlying cause of death". The 6-foot long by 6-foot wide by 12-foot deep pit had two "sections"; the top section was constructed of treated plywood with the top of the plywood approximately 4 feet above grade and the bottom section was a concrete pit 8 feet deep. Across the opening of the pit was a partial wood cover. The pit was located inside of a barn. The decedent began working between 8:00pm and 9:00pm to repair a pump that had been malfunctioning for a few days. The pump was located along the east and south walls and a ladder constructed of 2x4s was built into the west side wall. An extension cord was plugged into a flood light that was positioned to illuminate the pit. Wearing a Tyvek® suit and rubber boots, the decedent descended to the bottom of the pit by the ladder. It is unknown if he performed any work on the equipment. When he did not return home, a family member went to look for him in the early morning hours of the next day. When the family member arrived at the location, the family member moved the partial wooden cover from the pit opening and found him deceased. When emergency responders arrived, they found a 20-inch axial house fan on the ground near the pit. The fan was not plugged in when emergency responders arrived on scene; it was unknown if the family member moved and/or unplugged the fan upon discovering the decedent or if it had not been plugged in while the decedent was working. The heat indexes on reached 95 to 105 degrees on the day of the incident, with high temperatures and humidity sustained during the evening hours/early morning hours the next day. Emergency responders found the decedent lying on his back lodged partially under the pump and tightly against the pit wall in approximately 12 inches of manure.

MIOSHA General Industry Safety and Health Division did not issue a citation to the farm because it was a sole ownership.