

**Case 414. 23-year-old laborer was overcome and drowned when he entered a 10,500 gallon molasses tank to reposition a drain pipe.**

A 23-year-old male laborer was overcome and drowned when he entered a 10,500 gallon molasses tank to reposition a drain pipe. The decedent and a coworker were in the process of draining an 11.8-foot wide by 13.9-foot high, 10,500 gallon tank which had held a mixture of molasses and water. Near the bottom of the tank was a pipe to drain the contents. The drain pipe had been turned “up” rather than “down”. The workers hooked up a gasoline-fueled pump to the bottom valve to pump the molasses/water mixture from the tank. When no more of the mixture could be removed, his coworker indicated that a sufficient quantity of the molasses/water mixture had been pumped from the tank. The coworker stepped away, and several minutes later, noticed the decedent preparing to enter the tank. At the top of the tank was a 15-inch hatch opening. After some discussion, the coworker agreed to “spot” the decedent while he entered the tank to rotate the drain pipe to the “down” position. To enter the tank, the decedent placed a lift truck in front of the tank and raised the forks to a position so the forks were straddling the 15-inch opening. Suspended from the mast and the forks were two cargo tie-down straps. The decedent donned a pair of full-length waders and a full face respirator equipped with ammonia cartridges and rappelled to the base of the tank to reposition the drain pipe in an effort to further drain down the molasses/water mixture. He pushed the drain pipe into position, and then attempted to climb out of the tank by holding the straps and placing his feet on the side of the tank and pulling/walking up. The decedent twice attempted to climb out of the tank. The coworker observed the decedent become unresponsive and attempted to pull him out of the tank, but was unsuccessful. The spotter then ran to the firm’s office and emergency response was summoned. Firm personnel used a circular saw to cut a 4-foot by 4-foot hole in the tank. Two employees entered the tank and found the decedent submerged in the mixture. They pulled the decedent from the tank and began CPR. Emergency response personnel arrived and the decedent was transported to a local hospital where he was declared dead.

MIOSHA General Industry Safety and Health Division issued the following Serious citation to the employer at the conclusion of its investigation.

**SERIOUS:** PERMIT-REQUIRED CONFINED SPACES [REF 325.63002], OH PART 490, RULE1910.146(c)(3): If the employer decides that its employees will not enter permit spaces, the employer shall take effective measures to prevent its employees from entering the permit spaces and shall comply with paragraphs (c)(1), (c)(2), (c)(6), and (c)(8) of this section.

*On the incident date*, an employee entered a workplace space [i.e., molasses tank] meeting the definition of a permit-required confined space and drowned. The above ground molasses tank met the definition of a confined space, i.e., the space was physically large enough to bodily enter, had limited means for entry and exit, and was neither designed nor intended for human occupancy. Furthermore, this space contained hazards characteristic of a permit-required confined space, i.e., the space contained both engulfment and atmospheric hazards. Though entry into this space was prohibited, effective measures were not in place to prevent employee entry into the permit space. *MIFACE removed the date of the incident.*

Develop and implement measures that effectively prevent employee entry into the above ground molasses tanks, as well as any other permit spaces where entry is prohibited. Such measures may include permanently closing the space and erecting barriers, supplemented by training employees and posting danger signs. Any steps taken must be effective in preventing employee entry into the permit spaces. Provide to the department documentation that such measures are in place.

**SERIOUS: RECORDING AND REPORTING OF OCCUPATIONAL INJURIES AND ILLNESSES, ADM PART 11, RULE 408.22139(1): Fatalities.** Within 8 hours after the death of any employee from a work-related incident, you must report the fatality by telephone to the MOSHA toll-free central telephone number: 1-800-858-0397.

A work-related fatality that occurred on *incident date*, was not reported to Michigan OSHA [MIOSHA] within 8 hours after the death. *Two days after the incident*, a representative of the local county sheriff department notified the MIOSHA Agency regarding the details of the work-related fatality that occurred on *incident date*.