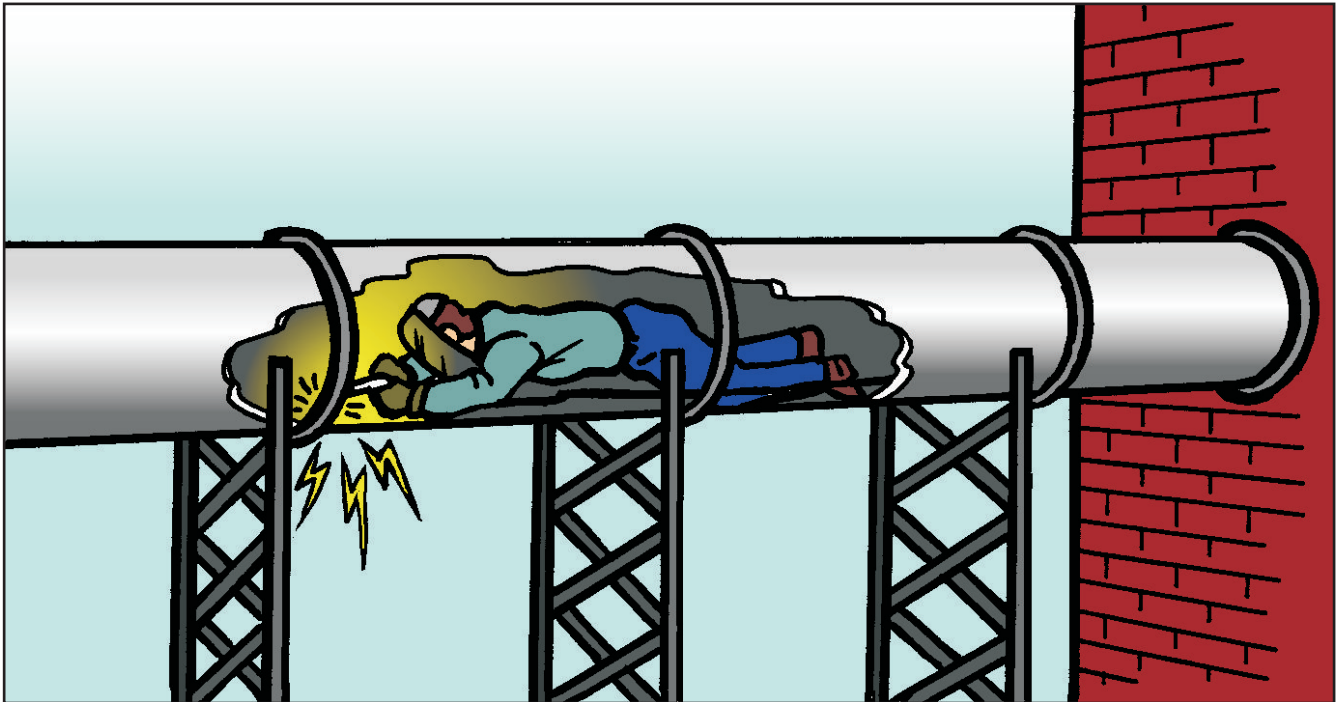


TOOLBOX SAFETY TRAINING

Company _____ Location _____ Date _____

Vol 16 - No 13 WELDING LEAD SHOCK



An employee was assigned to perform some welding repair work within a duct measuring approximately 60" in diameter and having a distance of approximately 300 feet. A steel mill factory uses this duct to remove excess dust particles during the steel milling process. This work area is classified as a permit required confined space. Prior to the worker entering this confined space the worker had taken all the appropriate precautions. The system had been properly locked and tagged out of service, air quality testing had been performed and documented and a retrieval system was in place along with the appropriate PPE.

The employee had to crawl approximately 150 feet within the duct work while pulling the welding leads along with him. The leads had to be dragged over the connecting points/joints of the metal corrugated duct. Upon the worker reaching the designated work area the worker placed the welding rod on the stinger and struck the rod to begin welding. Upon striking the arc the worker sustained a severe electrical shock due to the welding leads insulating cover becoming damaged and exposing the bare wiring to the metal duct. This damage occurred during the course of being pulled through the corrugated duct and over the connection points. The worker continued to be shocked as no one was readily available to get to the welding machine to manually turn off the unit in order to turn off the electrical current. The employee was finally removed by means of the retrieval system and taken to the hospital for evaluation and treatment.

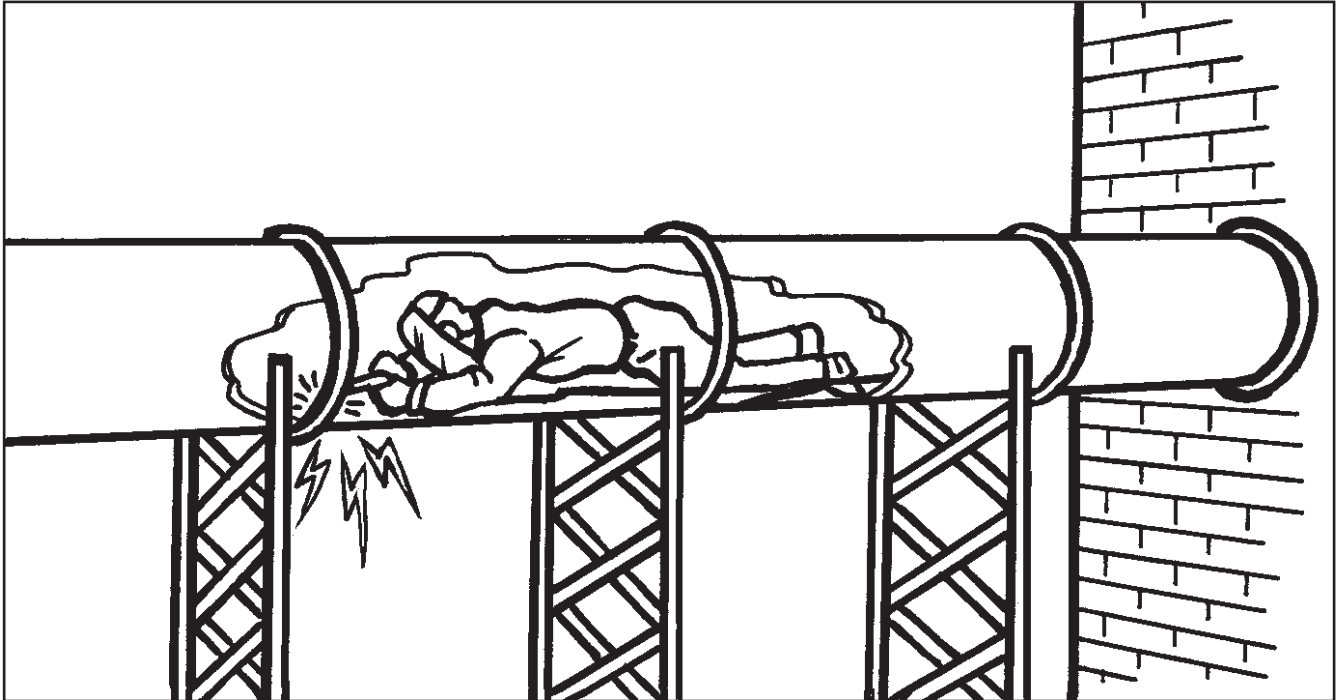
Recommendations

1. Place an additional worker at the electrical source to immediately turn off the current.
2. Provide an additional outer protective cover for the welding leads.
3. Utilize or create an access door closer to the designated work area to prevent having the lead being pulled through the duct.
4. Provide employees with radio communications.

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