Lead In Construction Fatality File



WORKERS POISONED BY LEAD EXPOSURE IN THE CONSTRUCTION SITE

A worker at a metal alloy factory was admitted to hospital suffering from severe kidney pains. It was discovered that he had lead poisoning. He had been working with two colleagues making lead sheeting from molten lead in a workshop that produced lead sheeting for church roofs. His job was to scrape off the impurities, or dross, in a crucible containing molten lead.

An investigation by the Health and Safety Executive (HSE) found that conditions were so bad that a Prohibition Notice was served, halting all work with immediate effect. There were inadequate controls in place to protect the workers. It was also established that lunch breaks were taken in an old, lead-contaminated caravan with no running water. Water was collected in contaminated plastic milk cartons from a polluted hand washing area of the workshop. Work clothes were not removed before eating and drinking, and there was no toilet facility at the factory.

The worker was admitted to hospital for three weeks and continued to receive treatment for over a year. He was found to have lead-blood concentration of about 70 micro grams of lead per decilitre of blood ($70\mu g/dl$). Legislation requires most workers reaching a lead-blood concentration of $60\mu g/dl$ to be suspended from work.

The worker who was admitted to hospital was off work for a year and can never work with lead again. The other workers were also found to be suffering from lead poisoning, including one who had swollen legs and was prescribed immunosuppression steroids. The toxic effects of lead and its compounds have been known for a very long time, and over-exposure to lead can have both acute and chronic health effects on workers. The sentencing judge stated to the defendant that "it would take the skill of Charles Dickens to adequately describe the conditions in which your staff worked".

These lead poisoning incidents demonstrate that good occupational hygiene is an important factor in protecting workers. Those who own companies and manage workers who may be exposed must assess potential exposure and, where it is likely to be significant, ensure that adequate controls are in place to protect the health of its workers.