Steam Explosion Injures Three Workers, Results in $100,000 Fine



A steel mill was relocating cooling water piping at its blast furnace. Temporary piping was needed to maintain the cooling systems while the new permanent piping was being installed. A crew of workers was installing the temporary water piping when a steam explosion occurred due to a hose rupture. One worker received leg injuries; another worker injured his hand; and a third received burns to the upper body. An MOL investigation found that the cooling water had been turned off for a substantially long period of time. In addition, two valves were closed to allow work on leaks in the hose. The steam that was created from the trapped water supply caused a pressure build-up that exceeded the hose's capacity, causing its rupture and the steam explosion. The steel mill pleaded guilty to failing to ensure that water wasn't turned off at the main header before workers began running temporary bypass hoses and was fined $100,000 [*Essar Steel Algoma Inc.*, Govt. News Release, June 9, 2016].