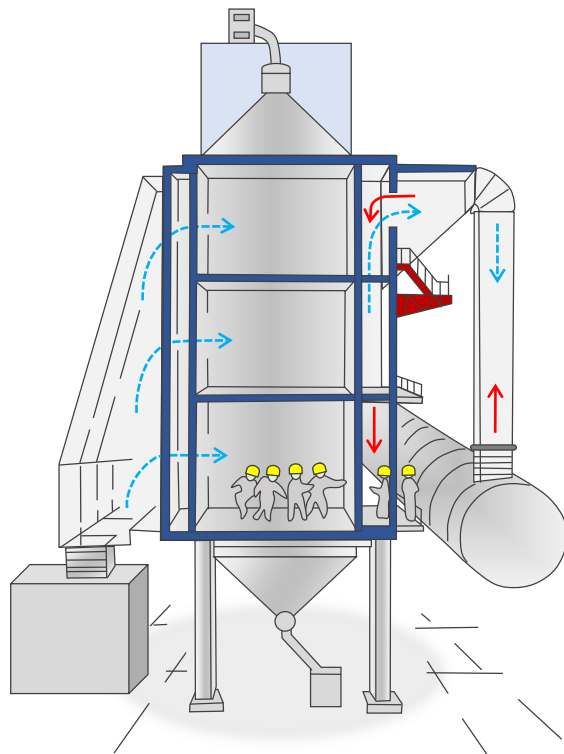


Case involving carbon monoxide poisoning during cleaning of a steelworks desulfurization equipment absorption tower



[Location of accident]

Absorption tower of desulfurization equipment for a sintering machine at a steelworks

[Cause of accident]

During the cleaning of the lower part of the desulfurization equipment, the victim and two other workers were positioned outside the inner manhole. Four workers were engaged in suction work with vacuum hoses inside the inner manhole.

The steelworks observer detected an unpleasant and irritating odor and suspected exhaust gas had leaked in from the sintering machine. Measurements of concentrations of sulfur dioxide gas, oxygen, and carbon monoxide in the manhole showed oxygen concentrations of 18.8 % and carbon monoxide concentrations of 130 ppm. The workers inside the manhole were instructed to evacuate.

[Damage/injuries]

The individuals affected were taken to a hospital by private car and examined. Doctors advised hospitalization for the observer and victim. The observer was discharged from hospital that day. The other victim remained hospitalized for a week for carbon monoxide poisoning.

Extract from [Preventive measures]

- [2] Make thorough arrangements to ensure communication before restarting equipment when working simultaneously on related facilities.
- [3] The working environment must be constantly monitored to ensure safety while work is being carried out.



Riken Keiki Recommendations

Wearing portable gas monitors during work allows prompt detection of gas leaks inside a furnace and alerts others in the vicinity of hazards.