Situation: Inspection contractors were examining a large liquid sodium storage tank (more than 10m long) which was situated below ground level in a concrete-lined pit. The nuclear power station used a lot of argon gas for process reasons, so there were narrow-bore pipes around the plant which were clearly labelled ‘Ar’ for Argon. The weather was quite warm, and power stations get very hot anyway.

Argon is heavier-than-air, suffocating, and has no smell.

I was duty shift manager. The plant foreman came to me to say that, when walking past the storage tank pit, he had noticed a hose rigged up from an Argon pipe which disappeared into the pit. He investigated - there were men in the pit - and he got them to come out immediately.

*The contractors had thought that ‘Ar’ meant ‘Air’. They were hot, so they used their initiative to set up a cooling ‘air’ supply. If the plant foreman (Hughie McCulloch) had not been observant, the argon would have filled the pit and the contractors would have become unconscious and died.*

The contractors’ work was stopped while they were ‘re-educated’.

**Moral:** External contractors working on high-hazard plant may not even begin to understand what the plant does, or what its hazards are. Hence there is a need for induction training, job risk assessments, and close supervision.