

Vary the Focus of Periodic Inspections

When inspections are performed the same way, again and again, their effectiveness tends to decrease over time. The inspection process becomes numbed by the repetition of the same routine over and over again. The following are some suggestions to help workplace inspections remain effective over time.

Mix it up

Often inspections follow the same route through the plant. Instead, take a different route or approach it in some new fashion. Reverse the direction. Walk through the areas instead of using the aisles. Also vary the time of the inspections. Sometimes activities are different during start up, set up, clean up and shut down times. Almost all inspections are performed during the day shift. An inspection performed during an off shift may reveal issues not present during the day shift (e.g., PPE worn during the day shift is not worn during the off shift).

Consider Maintenance activities as well as production

37% of incidents the CSB investigated occurred prior to, during, or immediately following maintenance work.

Over a third of incidents investigated by the Chemical Safety Board in the US deal with maintenance activities. These activities are often missed or not considered by workplace inspections.

One example is the spontaneous fires caused by iron sulphide. Iron sulphide is a pyrophoric material. This means that it can spontaneously ignite when exposed to air. It is created when iron oxide (rust) is converted into iron sulphide in an oxygen-free atmosphere where hydrogen sulphide gas is present or where the concentration of hydrogen sulphide (H₂S) exceeds that of oxygen.

When iron sulphide is subsequently exposed to air, it is oxidized back to iron oxide and either sulfur or sulfur dioxide gas is formed. This chemical reaction between iron sulphide and oxygen generates a considerable amount of heat. In fact, so much heat is released that individual particles of iron sulphide become incandescent and glow. This heat can ignite nearby flammable mixtures.

Pyrophoric iron fires most commonly occur during shutdowns when equipment and piping are opened for inspection or maintenance.

Talk to Workers

Often an inspection is taken as a visual inspection. However, no one knows the workplace like the workers doing the job. Also, some aspects of the job are intermittent - including the unsafe aspects of the job. Thus, it is unlikely that the unusual aspect is going to occur

during the small fraction of time that a workplace inspection is being conducted. Stop to talk to workers about concerns they may have, changes to the workplace, etc.

Flavour of the Month

For each inspection, have a specific safety aspect to particularly focus on. Of course, you are not going to turn a blind eye to any other safety aspect but try to put an emphasis on one safety topic each inspection. The focus could be slips and falls one inspection, pinch points the second inspection, chemical exposures the next, and so on. If the topic is known in advance, the inspection team could look through the **Safety in Numbers** material on that topic or other sources of information prior to the inspection to make the most of the tour.

Bring in a Ringer

Consider bringing in a safety professional – particularly if your company does not have a specific safety coordinator or a safety coordinator with limited experience. The fresh eyes of a Canadian Registered Safety Professional (CRSP), A Certified Industrial Hygienist (CIH) or a Canadian Risk Manager (CRM) bring not only “fresh eyes” but expertise that can find issues that may have gone unnoticed and raise the standard and quality of future in-house inspections