

PID In Construction

Introduction

Many governments are recognising the need for brown field development, a brownfield site is defined as “previously developed land” that has the potential for being redeveloped. It is often (but not always) land that has been used for industrial and commercial purposes and is now derelict and often contaminated.

It should also be noted that brownfield sites are considered great for redevelopment of not only housing and commercial buildings, but also as open spaces for recreation, conservation, woodland and other community areas.

The development potential of brownfield sites is huge, and there are some important considerations to take into account. Previously developed brownfield sites typically require preparatory regenerative work before any new development goes ahead, it also depends on whether there is contamination present, which is an area where Photoionisation detection is important.



Contaminated land in the Construction industry where VOCs are released

Many contaminated sites hide high levels of harmful compounds that are a high risk to human health and have been undisturbed for many of years and once disturbed can affect the site workers as well as neighbouring business, residential areas and schools.

These contaminants can range from natural gases right the way to high carcinogens such as Benzene that have huge impacts to quality of life and environment and must be controlled.

With boundary monitoring as important as ever, sometimes onsite employees can get forgotten about and exposure can be uncalculated and unrecorded.[3]

But what about when decontamination is complete and we are ready to build on newly cleaned brownfield site, or any site designated for construction.

Almost every construction worker has a story of a job site that made them light-headed. Most only realized the effects when they got home after a full day of work; a few have stories of air with so much pollution that they had to stop work because of distracting headaches. Others have stories of “thick air” at a site which caused them to cough for weeks. Construction staff and the local population should never be exposed to these dangerous environments.



Detecting VOCs in the Construction Industry

With PID technology we are able to protect employees such as banksman or ground works engineers who can be first contact with the high PPM levels of these carcinogens once disturbed in excavator applications.

The PID sensors will detect a wide range of gases that are harmful to health and indicate to working employees any high concentrations as well as calculating TWA and STEL limits through working shifts for known compounds.

This can be a great way of first detection to alert others on site of high contaminated samples to allow further lab-based technologies to identify hidden risks and ensure the protection and control is put into place for those in and around the contaminated areas. The state of New York has taken this one step further with **Community Air Monitoring Programs (CAMP)** ensuring best practice to protect not just on-site employees, but also the

neighbour who will eventually benefit from the new regeneration.



References

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3. Shaw city article about PID and Banksmen, written by Elliot (<https://www.shawcity.co.uk/>)

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