Press Release

Words: 557

Heading of PR: The environmental effects of combustion

Combustion can be simply explained as a controlled explosion created for a specific use. However, like any other explosion, it can be hazardous if not properly monitored. The amount of heat above the ignition temperature should be efficient for impact, therefore the excessive heat temperatures and energy created should be closely monitored. Risk Analysis is an important management tool that aids in assessing the overall safety performance of a chemical process and specific hazardous substance handling operations. Although certain management systems have provided substantial safety assurances, serious injuries and damage can still occur. Risk Analysis techniques provide advanced quantifiable means to supplement other hazard identification, analysis, assessment, control and management methods to identify the potential for such incidents and to evaluate control strategies.

Risk is a measure of the probability and consequence of an adverse effect. It thus comprises of two variables; magnitude of consequences and the probability of occurrence. The degree of risk is dependent on two factors; who can be affected and the extent of the consequence.

Who can be affected?

When the proportions of fuel and oxygen are incorrect, combustion can become harmful. This can result in an explosion or a leak of toxic chemicals. This occurrence can be life threatening, resulting in injury or fatality. This could also result in lethal releases and fires. This poses a threat to people and the environment.

Environmental aspects of combustion

There are various impacts of combustion on the environment, these impacts can be caused by; Gas leaks, oil spillage, noise and air pollution. Incomplete combustion of hydrocarbons also results in carbon monoxide pollution. An odorless, colorless gas, carbon monoxide can be harmful to both the environment and to people. Carbon dioxide is always released when hydrocarbons are burned. It is a leading cause of global climate change and the acidification of oceans. Although carbon dioxide is a greenhouse gas that helps to keep us warm, too much greenhouse gas could result in global warming.

At the SADC Combustion Seminar that was hosted by the Southern African Gas Association (SAGA) on the 27 & 28 March 2018, Carl Bothma made reference to London's great smog of 1952. This was a fog so thick and polluted it reportedly left 8,000 – 12,000 people dead and 100 000's sick. The smoke-like pollution was so toxic it was even reported to have choked cows to death in the fields

"We have the tools available to reduce atmospheric emissions, but first, we have to do one most important thing, we must care." Carl Bothma

Although combustion has a list of negative environmental effects, it produces the amount of energy needed in various industries and in domestic set-ups. To minimise the impact it has on the environment, risk management should be fully implemented whilst we all strive to consume as little energy as possible.

End.

About SAGA

We ensure all industry stakeholders in the methane based environment provide safe and efficient downstream operations to users in the domestic, commercial and industrial markets within Southern Africa:

- Educating in safety and standards
- Providing qualified gas practitioners
- Assisting industry to comply with relevant legislation
- Administering a safe gas equipment scheme
- Ensuring a climate conducive to safety
- Advocating the efficient use of gas and equipment
- Interface with government on regulatory issues
- Upholding sound environmental practices