

We are



Hello,

July 2022

## Process Safety Dispatch

---

### In this Issue

- Intrinsic Safety - What's it all about?
- Hazardous Area/ Location - Our Consulting Services
- Explainers: Hazardous Location Classification
- Free On Demand Webinars

---

### Intrinsic Safety - What's it all about?



*You visit your local hardware store and buy a light fitting for your home; it's stylish, convenient, and cheap. Why not do the same at your place of work?*

*Don't even think about it!*

*In this Process Safety Dispatch article, we take a look at a rather important measure in preventing explosions on plant where flammable gas, vapor, combustible dust or fibers could be present, in so-called **Classified** or **Hazardous Locations**. This month we are demystifying the often-misunderstood concept of **Intrinsic Safety (IS)**.*

It must be understood that using ordinary (unrated) electrical equipment and wiring in **Hazardous Locations** is dangerous and can result in fire or explosion with significant risk to life, the community, plant, and business continuity. Such unrated electrical equipment might produce sparks, arcs or get hot under both normal and abnormal operating conditions or even allow product to enter its enclosures, with potential risk of spark ignition, smoldering combustion, product self-heating, and short circuit. With unrated equipment, no one will have evaluated the potential for these hazards to arise!

Cue '**explosion proofing**'.... and introducing **Intrinsic Safety (IS)**

[Read More](#)

## Hazardous Area/ Location - Our Consulting Services

At Stonehouse, we have process safety consultants that specialize in helping clients with all aspects of Hazardous Areas and equipment contained therein:

- We **Classify Hazardous Areas** by establishing the likelihood, extent and duration of flammable atmospheres; we interpret the flammability/ combustibility characteristics of hazardous materials present; all our work utilizes the latest guidelines and the relevant Codes and Standards.
- We advise on practical solutions as to how flammable atmospheres can

be **eliminated and/or controlled**.

- We advise on the **selection, and installation** of electrical equipment and wiring that is suitable for use in the classified hazardous areas.
- We **audit facilities** to check on equipment installed and its suitability for safe use in its classified location.

In performing our work, we always find it's worth making sure that the facility personnel is deeply involved in all steps of the process, so their knowledge is both utilized and expanded - and specific concerns are addressed.

[Arrange a Discussion with Us](#)

## Explainers: Hazardous Location Classification



**Hazardous Location:** The National Electric Code defines Hazardous Locations as “places where fire or explosion hazards may exist due to the presence or occurrence of flammable gases or vapors, flammable liquids, combustible dust, or ignitable fibers or flyings”.

**Hazardous Location Classification:** Hazardous locations (Areas) with fire or explosion risks due to the likely presence of explosive atmospheres and/or mixtures - are called **Classified (or Hazardous) locations or areas**. In North America (United States and Canada) these locations or areas are classified with a Class/Division system.

More information on the Class/ Division/ Group system in North America is available in a previous Process Safety Dispatch article available [here](#).

[Read More](#)





## Expert Consulting

- Dust Explosion Prevention & Mitigation
- Control of Static Electricity
- Hazardous (Electrical) Area Classification
- Process Hazard Analysis
- Process Safety Management
- Fire and Explosion Hazard Assessment
- Incident Investigation
- Organizational Process Safety Competency Assessment

## Specialist Laboratory Testing

- Combustible Dust Testing
- Electrostatic Testing
- Self-Heating / Thermal Instability Testing
- Flammability Testing of Gases & Vapors



**REQUEST A QUOTE**

## Free On Demand Webinars

**Combustible Dust Hazards: Assessment, Prevention and Protection Including the Requirements of NFPA 652** [\[watch\]](#)

**Electrostatic Hazards in Processing Industry: The Nature of the Problem and Practical Measures for its Control** [\[watch\]](#)

**Fire and Explosion Hazards: How to Identify and Control Them in Your Process** [\[watch\]](#)

If you received this newsletter from a colleague and would like to sign up to receive our newsletters in the future -- [Sign Up](#).