



Industrial Technologies
1302 Goshen Parkway
West Chester, PA 19380

West Chester Facility

October 9, 2017

To: Ingersoll Rand Distributors
Ingersoll Rand Customer Centers

RE: Hazardous Location Policy – Air Treatment Products

Introduction: The following describes Ingersoll Rand's Policy for quoting and selling air treatment products for use in Hazardous Locations.

Definitions: The National Electrical Code (NEC) defines hazardous locations as those areas "where fire or explosion hazards may exist due to flammable gases or vapors, flammable liquids, combustible dust, or ignitable fibers or flyings." Hazardous locations are defined by their "Class", "Division" and "Group" designations.

Hazardous Location Types - "Class I, II or III":

According to the NEC, there are three types of hazardous locations. These classes are divided based on the type of flammable material that is or may be present in the atmosphere.

Class I – locations in which flammable gases or vapors may be present in the air in sufficient quantities to be explosive or ignitable.

Class II – locations are defined as those areas made hazardous by the presence of combustible dust.

Class III – locations are defined as areas where there are easily-ignitable fibers or flyings present, due to the types of materials being handled, stored, or processed.

Hazardous Location Conditions – "Division 1 or 2":

This designation defines whether the hazard is a normal condition or an abnormal condition.

Division 1 – Normally Hazardous: The hazard would be expected to be present in everyday production operations or during frequent repair and maintenance activity.

Division 2 – Not Normally Hazardous: When the hazardous material is expected to be confined within closed containers or closed systems and will be present only through accidental rupture, breakage or unusual faulty operation.

Nature of Hazardous Substances – “Group A, B, C, D, E, F or G”:

This designation defines the specific gas or particulate that makes up the hazardous location. The list for these groups is extensive and will not be covered here. Suffice it to say, Groups A, B, C & D are associated with flammable gases, of which Groups C & D are the most common. Groups E, F & G reflect specific hazards for Class II locations.

Hazardous Locations – Ingersoll Rand Products: Consistent with the approach that Ingersoll Rand takes with their compressors, air treatment products will only be quoted and / or sold for use in Class I, Division 2, Group C & D locations. Dryers will NOT be quoted and / or sold for areas defined as Class 1, Division 1 (normally hazardous) locations.

Compressed Air Dryers: The following products are eligible for locating in a Class I, Division 2 locations:

- Heatless Desiccant Dryers – Pneumatic Operation
- Heatless Desiccant Dryers – Z-Purge Electrical Panel with appropriate provisions for electrical options. [UL rated, purged electrical enclosure assembly with appropriate provisions for electrical options.]

Ingersoll Rand will not provide refrigerated dryers, heated purge or blower purge desiccant dryers, or flow controllers for hazardous locations.

Other Air Treatment Products: Any product containing electrical components cannot be used in any hazardous location unless specifically designed for such an environment.