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## Prevent Static Fires in Solvent Coating and Printing

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### Abstract

Preventing static fires is one of the greatest static control challenges in solvent coating and printing operations. Most static fires can be prevented using a fault tolerant static control system. In a fault tolerant system, an incendive spark (or other system failure) must not be caused by a static bar that fails or any other single fault. That is, any single failure is insufficient to allow a spark that can ignite flammable solvents. Here, a two layer strategy is described that provides fault tolerant static control. “Inner circle” static dissipators are installed to protect specific risk such as areas with flammable solvent vapors. “Outer layer” static dissipators are installed to dissipate static at sources of charging. With all outer layer dissipators functioning properly, a neutral web enters specific risk areas. Inner circle dissipators prevent static sparks should an outer circle dissipator fail. Examples of this two layer, fault tolerant strategy for typical gravure coaters and flexo presses are presented.