Prevention and Suppression of Metal Packing Fires

Roberts, M., W.J. Rogers, M.S. Mannan, and S.W. Ostrowski
Mary Kay O'Connor Process Safety Center
Chemical Engineering Department
Texas A&M University
College Station TX 778433122
Email: mannan@tamu.edu

ABSTRACT

Structured packing has been widely used because of large surface area that makes possible columns with high capacity and efficiency. The large surface area also contributes to fire hazards because of hydrocarbon deposits that can easily combust and promote combustion of the thin metal packing materials. Materials of high surface area that can fuel fires include reactive metals, such as titanium, and materials that are not considered combustible, such as stainless steel. Column design and material selection for packing construction is discussed together with employee training and practices for safe column maintenance and operations.

Presented also are methods and agents for suppression of metal fires. Guidance for prevention and suppression of metal fires is related to incidents involving packing fires in columns.