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## **A Review of the 2012 Reynosa Gas Plant Explosion**

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### **Introduction**

On September 18, 2012, a major fire and explosion ripped through a gas plant in Reynosa, Mexico resulting in 31 fatalities and many injuries. The incident was caught on Closed Circuit Television (CCTV) and has been viewed millions of times on social media sites such as YouTube. The video clip is particularly useful to process safety practitioners as it demonstrates the various hazardous outcomes that can result from one individual loss of containment event. In the case of this incident, it is possible to see the initial pressure wave, followed by turbulent momentum jet dispersion, then a flash fire and jet fire, as well as shrapnel projectiles.

This paper reviews the potential causes leading to the incident, as well as summarizing the lessons that can be learned from the video clip. Additionally, it emphasizes the need for a complete and thorough Process Safety Management program.

One motivating factor in writing this paper is the apparent lack of publicly available information and reports addressing this incident. Further research still confirmed the lack of readily available information, from either English or Spanish language sources. This paper therefore presents the opinions of the authors, based on the limited information and conclusions we were able to derive.