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Remembering the Umm Said NGL Plant Destruction 50 Years On

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ABSTRACT

On 3rd April 1977, Qatar faced its most devastating industrial catastrophe. Catastrophic failure of a liquefied propane tank at the state-owned Umm Said Natural Gas Liquids plant released a wave of flashing refrigerated propane which surged over the containment dike, inundating the installation. The ensuing fire raged for eight days, illuminating the desert night and scorching villages nearly a mile away. The plant was completely destroyed, dealing a significant setback to the ambitions of the newly sovereign nation. Amidst the blistered metal and charred sand lay six victims.

To this day, remarkably little is known about what happened. Despite at least half a dozen separate investigations known to have been conducted, no comprehensive public report was ever released, largely due to the prolonged legal battles that ensued. The engineering community was largely left to read between the lines when, in the following years, an engineer affiliated with one of the litigant parties released a series of technical papers proposing new recommendations for the construction of liquefied gas tanks. For decades, little else emerged – until 2009, when an anonymous user leaked a haunting set of annotated photos of the fire and aftermath on file sharing site Scribd.

This case study seeks to bring together the fragmented sources, frame the incident against the nation building efforts of 1970s Qatar, and draw out the lessons that still resonate for today.

KEY WORDS

NGL, Storage Tank, Process Safety

BIOGRAPHY

Ewan Stewart is a Process Engineer with Kent Plc, where he is supporting a major refinery upgrade. His experience spans the many stages of process design and operations, having supported clients in the oil and gas, petrochemical and municipal water sectors. He has authored technical content for the Loss Prevention Bulletin which has also presented case study webinars for the IChemE Safety Centre. He applies a strong safety focus across his

work and is a firm believer in storytelling as a means of getting the safety message across. Ewan is the current chair of the IChemE Australia board.

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