

May 5, 1988: Norco, Louisiana, Shell Oil refinery explosion

(Reference: Wikipedia)



At 3:37 a.m. on May 5, 1988, an explosion occurred in the catalytic cracking unit (CCU) of an oil and gas refinery. The explosion apparently was the result of corrosion of an 8-inch vapor line. This vapor line, under 270 psi pressure, ran from a 10-inch header that originated as the main overhead vapor line from the depropanizer column. The apparent instantaneous line failure released approximately 17,000 pounds of hydrocarbon vapor for approximately 30 seconds. A possible ignition source could have been the unit's superheater furnace. The damage pattern indicated that the explosion was probably an aerial explosion with an epicenter located in the area between the depropanizer and the CCU control room. Employees #1, #2, #4, #5, and #7 were found fatally injured inside the CCU control room as a direct result of the blast. Employee #3 was found fatally injured approximately 30 feet outside the west side of the CCU control room as a direct result of the blast. Employee #6 was fatally injured while he was exiting the GO-1 South control room.^[4] Damage from the explosion radiated one mile from the center of the explosion and debris could be found as far as five miles from the center

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of the explosion. The blast could be heard approximately 25 miles away in New Orleans.



There were reports that the blast set off burglar alarms in New Orleans. The explosion caused a fire to burn for eight hours at the oil refinery before it was brought under control. Chemicals that escaped during the explosion resulted in cars and homes being covered by a black film. The governor declared a state of emergency in Norco and St. Charles Parish. Seven shell workers were killed during the explosion and 48 residents and Shell workers were injured in the explosion. The explosion released 159 million pounds of toxic chemicals into the air, which led to widespread damage and the evacuating on 4,500 people.