

Henderson rocket plant fire explosion case study

[Business](#), [Company](#)



This case happened within Clark County's incorporated industrial area, about 10 miles from Las Vegas. The actual site was the Count "Island", bordered by the city of Henderson, Nevada where a sequence of explosions occurred on 4 May, 1988.

The origin of the explosion was The Pacific Engineering Production Company of Nevada (PEPCON) that is among the only two world manufacturers of ammonium perchlorate. This substance is a very strong oxidizer and it is combined with combustible substances and the product has high energy content that combusts rapidly. Consequently, it is "used in solid fuel rocket boosters, entailing military weapons and Space Shuttle" (Routley, 6).

It is reported that fire started around or within a drying process edifice in the company between 1130 and 1140 during repairs of the steel frame of the structure by use of a welding torch. The fire spread quickly as the material had fiberglass and hastened by remains of ammonium perchlorate in the area. Its employees tried to extinguish it but they could not hence they surrendered when the initial serious explosion happened within the 55-gallon drums (Routley, 10). A series of explosions destroyed the PEPCON facility together with the marshmallow factory that was situated nearby.

The magnitude of the explosions left Clark County Fire Department incapacitated after using all the resources at their disposal to try averting the situation. In total seven explosions were recorded, resulting to an enormous column of smoke rising from the plant. The wind carried it towards the east to the business and residential areas of Henderson affecting many people (Routley, 23). The two biggest of them happened within the plastic drums and later the aluminum containers, amounting to 3.0 and 3.5

respectively as measured on the Richter scale. Consequently, evacuation within a radius of miles around the area especially along the windward was made.

As a result, two people were killed and about 372 others injured among them, 15 firefighters. The damage that was caused by the explosions was approximated to more than \$ 100 million. Considering the magnitude of the explosions, many people were fortunate to survive as the fire had a great potential of killing and maiming very many people (Routley, 13).

Works Cited

Routley, Gordon. Fire and Explosions at Rocket Fuel Plant Henderson, Nevada. 1990. Web. 19 April 2012