

CASE STUDY: GAS EXPLOSION AT BAKERY



Summary

A pie-making company was prosecuted for safety offences after a gas explosion in an industrial bakery oven ripped through its factory - killing a father of two and badly injuring another worker. The explosion happened after a baker made apparent repeated attempts to light the 30-year-old oven unaware that more and more gas was building up to a critical flashpoint inside the baking chamber.

When the gas did ignite, the blast blew the large oven door off its hinges hitting the worker. The 37-year-old baker, who was standing in front of the oven, was hit by the door and then trapped when part of the roof collapsed.

The baker, who had worked for the company for 12 years, was pronounced dead at the scene. A colleague was also badly injured.

The court heard that the baker, a supervisor, had started work early so he could light the two large ovens before other workers arrived. One of the ovens had apparently failed to light and at around 5am it exploded, killing him, injuring his colleague and causing severe damage to the building.

HSE found the company's procedures for operating the ovens were inadequate and informal. The bakery workers had not been given sufficient instruction or training in their use, or the potential hazards arising and precautions necessary to operate them safely.

The company failed to appreciate that direct-fired ovens could potentially fill with a flammable mix of gas and air if repeated unsuccessful attempts were made to fire them up.

The investigation also discovered that an explosion relief panel on the back of the oven, which should have safely vented excess pressure, had at some time been rigidly fixed in place.

Action

The company were found guilty at Crown Court of breaching the Dangerous Substances and Explosives Atmospheres Regulations 2002. The company were also found guilty of two breaches of the Provision and Use of Work Equipment Regulations 1998.

The company were fined a total of £250,000 and ordered to pay additional costs of £124,896.

Imposing the penalty, the judge said the company had 'failed dismally' his judgement reflected the level of failings by the company.

Advice

After the hearing the HSE Inspector said: “The tragic death of the employee in this incident was devastating for his wife and family. I hope that the conclusion of the case will help to provide a degree of closure for his bereaved family, friends and former colleagues. The judge commented clearly that the worker was not at fault. “The explosion could have been avoided if the correct lighting-up procedures had been followed. No more than two attempts to light the oven should have been made. If the oven still failed to light, engineers should have been called in. “Large gas oven explosions are known, but rare. HSE issued a Safety Alert after this incident to similar companies asking them to check the explosion reliefs on all direct fired bakery ovens.”