

History of Explosives Legislation

Over the centuries explosive legislation has attempted to balance public and media reaction to the not infrequent explosions of stores and powder magazines, mills and factories that were then prevalent with the need to defend the realm from both external and internal threats and to maintain a stable supply chain of explosives. As such the nature of this legislation has changed over the years. However, as was reported in “The Rise and Progress of the British Explosives Industry” of 1909, every change and every improvement in legislation usually brings some difficulties and inconveniences in its train.

In that book there is a chapter on legislation written by Edward Arthur Brayley Hodgetts (incidentally also of “Swiss Family Robinson” fame) in which he says *“There is a Russian proverb to the effect that those who fear wolves should refrain from frequenting forests; but such fatalistic philosophy has never found acceptance with the practical spirit of British public opinion; our legislature, with indomitable optimism, again and again attempts the impossible, and even endeavours to reconcile opposing and incompatible interests in a spirit of wise and charitable compromise. Thus we constantly find the interests of the state at variance with the comfort and convenience of the individual and in its practical efforts to remedy abuses, Parliament has not infrequently to contradict itself in quite a perplexing, though to us not an entirely unentertaining manner”*. Sounds familiar?

Thus it has been since the mid-1600s, when legislation was used alternately first to encourage and then to restrict the free movement of gunpowder, mainly from overseas. On the one hand in 1641 legislation was introduced to remove restrictions on both domestic manufacture and import from overseas because they had *“...weakened and endangered the Merchants thereof and much*

damnified many Mariners and others taken prisoner into miserable captivity and slavery, many ships taken by Turks and other pirates and many other inconveniences...if they had not been timely prevented". On the other hand the Long Parliament enacted legislation in 1642 which stated that "*... no Carrier, Waggoner, Watchman, Wharfinger or other person whatsoever shall carry or covey out any gunpowder to any place without Warrant from both Houses of Parliament*". In 1672 this was repealed under a general Free Trade Act specifically legalising again the unhindered movement of gunpowder. And so the legislation went back and forth.

But it is not until 1719 that we come across any serious attempt at a measure at all resembling in its scope the current explosives legislation. The 1719 Act stated that "*Whereas great quantities of gunpowder are frequently lodged and kept in warehouses and other places in and about the Cities of London and Westminster, and the suburbs thereof, to the apparent danger, if not utter ruin and destruction of several public offices, and of the lives and fortunes of many thousands of his Majesty's subjects: For preventing these mischiefs it was enacted that from and after the first day of August, 1719 it shall not be lawful for any person or persons to have or keep more than 600 pounds of gunpowder within the Cities of London and Westminster, or within the Suburbs thereof, or within three miles of the Tower of London, or within three miles of His Majesty's Palace at St. James's*".

Six years later it was found necessary to make amendments to the law, and so in 1725 an Act was passed to prevent dealers in gunpowder from dividing their houses and warehouses into several small partitions or apartments, and therein keep greater quantities of gunpowder. It was moreover felt to be necessary to lessen the quantity of Gunpowder allowed to be kept to no more than 200 Ib.

Two further Acts were passed in 1742 and 1749 "*for preventing mischiefs which may happen*" by keeping gunpowder; the first, referring only to the Cities of London and Westminster; the second a general Act including carriage as well.

This latter Act prohibited the carriage within Great Britain of *"more than 2,000 Ib. of Gunpowder in any waggon, cart, or other carriage, by land or more than 5,000 Ib. of Gunpowder in any barge, boat, or other vessel, by water"*.

The first Act of Parliament affecting the manufacture of gunpowder was passed on the 22nd January, 1772, and came into force on the 1st July of the same year. To judge by the preamble, this Act would seem to be a sort of legislative afterthought, for it stated that *"Whereas the manufacture of gunpowder within Great Britain, though necessary to be encouraged in respect of the value of gunpowder as an article of defence and commerce, yet ought to be regulated by law in order to prevent the great mischiefs which may arise from explosions occasioned by the improper construction and use of the mills, engines, and buildings, employed in the making of gunpowder, and for keeping and carrying gunpowder in too great quantities, or in an improper manner"*.

The Act then went on to prohibit the use of stamp mills and provided that no more than 40 Ib. of gunpowder should be manufactured at one time or under any single pair of Mill Stones, and nobody was allowed to dry any quantity of gunpowder exceeding 40 cwt. Furthermore this Act specifically exempted from its coverage any mills or buildings on land belonging to the King, therefore the Royal Gunpowder Factory at Waltham Abbey was exempt from this Act.

It was not until 1860 that the first Gunpowder Act of that century was passed. This contained a number of regulations for the manufacture and keeping of gunpowder, among which there is the first provision for protection against lightning, every maker of gunpowder being enjoined to *"cause to be erected or provided good and sufficient thunder rods in connection with every store magazine where gunpowder is kept by him."*

But the Gunpowder Act of 1860 had many defects, the most serious of which was apparently the difficulty of enforcing its provisions. Public attention was first directed to this by an infamous explosion on 1st October 1864, at Erith, which resulted in much loss of life and destruction of property within a radius of ten miles, and led to the inhabitants of the neighbourhood calling for the appointment of a special commission of inquiry.

At about 7 o'clock in the morning, two barges were being loaded with powder from one of the magazines on the marshes, when one barge exploded, instantly followed by the other, and then by the magazine. The explosion was heard all over London, and was felt 50 miles away. A tall column of black smoke rose above the area and hung for some minutes until dispersed by the wind. No trace of the barges was found, but bricks and timber from the magazine and nearby houses which were destroyed were scattered over a wide area.



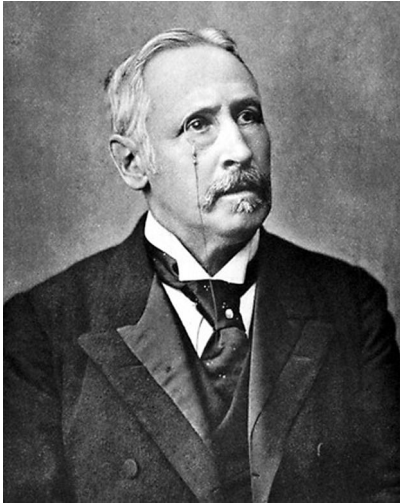
This picture from the London Illustrated News depicts the aftermath of the Erith gunpowder explosion in 1864.

Colonel Moody, Commanding Royal Engineers at Chatham, reported that *“My inspection revealed to me a condition of affairs in respect to the existing magazines in the neighbourhood that, I submit, necessitates the immediate consideration and action of Government. I found the magazines uniformly built as close as possible to the river bank; in fact partly on the inner slope of the embankment. The doors of the magazines fronting straight to the river, doors, stage with tramways, and the jetty all in a direct line. None of these were roofed, closed or guarded. While the stage and door of each magazine were on the same level as the top of the embankment, along which a public thoroughfare, free and open, passed at a distance of two yards from the door of the magazine. I found one of these doors open without anybody in charge. A man actually passed by smoking his pipe, and boys were in the habit of selling matches from open door to door of the magazine. Steamers passed within moderate distance of the river bank, sparks streaming from the funnels. There were beds of reeds close to the doors; when the reeds were cut down the stubble was frequently set fire to, in order to improve the next crop”*. Not a happy state of affairs!

In the following month, Lieutenant Colonel Boxer RA, Superintendent of the Royal Laboratory, made his report on the explosion, which corroborated all Colonel Moody had said, and concluded with these words: *“I respectfully submit that further restrictions in relation to gunpowder magazines, are required for the due protection of the public.”*

This report of Colonel Boxer's marked the beginning of the present system of inspection, and Colonel Boxer may be described as the first Government Inspector of Explosives, for on the 31st October, 1864, Sir George Grey, the Home Secretary, authorized Colonel Boxer “to inspect and examine any mill, magazine or place in which any kind of explosive was manufactured or kept”. Thereupon Colonel Boxer inspected a number of gunpowder mills and magazines and issued a report, dated 31st January, 1865, making recommendations, the spirit of which appeared in the concluding sentence: “In the absence of legislative restrictions of universal and compulsory applicability it would be unreasonable to expect the adoption by individual firms or

manufacturers, or the voluntary imposition by the trade at large, of more than ordinary precautions, when extra precautions entail extra cost". In other words, enforced legislation would result in a level playing field.



Colonel Sir Vivian Daring Majendie KCB carried the evolution of legislation a step further by recommending, in 1871, the appointment of permanent Inspectors. In a report to the Home Secretary dated 16th May 1872, he again urges this recommendation, and says: *"If I succeed in showing that the law is habitually disregarded, and that many necessary precautions are neglected, I shall, I think, have established the necessity for the appointment of one or more permanent inspectors of Gunpowder Factories."*

Colonel Majendie investigated the explosion on 2nd October 1874 in the Regent's Canal when the barge 'Tilbury', carrying six barrels of petroleum and five tons of gunpowder blew up, killing the crew and destroying Macclesfield Bridge and cages at nearby London Zoo. This resulted in The Explosives Act of 1875, which dealt with the manufacture, keeping, conveyance, and importation of explosives. For his work on framing this legislation he was awarded the Companion of the Order of the Bath (CB). The 1875 Act was eventually superseded by the Explosives Act 1923, the Manufacture and Storage of Explosives Regulations 2005 and most recently by the Explosives Regulations 2014. There has been much other detailed legislation over the years, albeit the basic principles of the 1875 act remain unchanged to this day. Moody, Boxer and Majendie did much for which we should be very grateful.

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