

LACORS refuse to correct inaccurate press release

The Local Authorities Coordinators of Regulatory Services (LACORS) are the government body responsible for Trading Standards across the UK. Through the network of Trading Standards Officers across Britain, LACORS have ultimate responsibility for protecting the public health from potentially dangerous consumer products.

When electronic cigarettes appeared in the UK market a couple of years ago, some Trading Standards Offices, based in Surrey, Sheffield, Blackburn and LB Hammersmith and Fulham asked for sample cartridges and sent these to their labs for analysis. The labs duly analysed the samples and reported back, concluding that these cartridges contained dangerously high levels of nicotine, with one as high as 20% nicotine, weight by volume. They found that all four e-cigarettes tested had nicotine at more than seven percent in solution.

Nicotine – in its pure form – is highly toxic, and the Poisons Act of 1972 addresses this naturally-occurring compound with very specific levels of classification and exemptions. It is important to note from this that nicotine is **exempted from classification as ‘poisonous’ under the terms of the Act if it is below 7.5% weight by volume**. Therefore, any product containing nicotine at **below 7.5%** is **not** considered ‘poisonous’.

Trading Standards have a variety of legal tools at their disposal to prosecute anyone found selling a dangerous product to the fullest extent of the law. **However, Trading Standards did nothing, other than to insist on ‘toxic’ warning labels being displayed. The vendor of the alleged ‘20% nicotine’ cartridge wasn’t even fined.** As co-ordinators for Trading Standards, LACORS were duly informed of this series of events. They issued a press release : <http://www.lacors.gov.uk/lacors/PressReleaseDetails.aspx?id=21233> in March 2009, in which they informed the public about the highly dangerous nature of these products:

“Results of tests commissioned by LACORS on e-cigarettes reveal that these products are currently being sold illegally in the UK. All four e-cigarettes tested had nicotine at more than seven percent in solution and therefore are legally required to display ‘Highly Toxic’ product warning. One refill contained nearly 20 percent nicotine, or 18mg per refill, equivalent to 20 cigarettes.”

It is important to notice that these **four tests** must have **proven safety** under both the Poisons Act 1972 and the General Products Safety Regulations 2005, because if they had not, LACORS is responsible for ensuring that such products are removed from the market. The UK electronic cigarette industry provides a genuinely revolutionary alternative smoking option for Britain’s smokers. This industry (and public health) has been seriously damaged by LACORS’s having grossly misrepresented these products to the public and (perhaps more importantly) to UK policy-makers. Consequently, the UK now faces a ban on these potentially life-saving products.

It is perhaps even more important to notice that these lab analyses **did not find tobacco-specific nitrosamines or diethylene glycol**. The FDA in the States has been quoted by policy-makers and others internationally as having found a range of toxins in electronic cigarettes. UK Trading Standards appear to have found none of these toxins in the samples they tested. (The FDA test ‘results’ have been widely discredited. It is significant that diethylene glycol – the so-called ‘antifreeze’ ingredient, is a perfectly legitimate ingredient in tobacco cigarettes, at much higher levels, and has been for many years.)

Unfortunately, the lab which did the original testing of the sample which allegedly contained 20% nicotine, **miscalculated the results**. The cartridge in question actually contained **2%**

nicotine (weight by volume), and not the subsequently widely-reported 20%. At 2%, the nicotine content is not a cause for concern, not least since scientific experts and policy-makers have agreed that nicotine (apart from being addictive) is a “very safe drug”.

It is an easy mistake to make, since the nicotine content in electronic cigarettes has usually been displayed in mg/ml. The cartridge in question was labelled 18mg/ml, and a non-mathematician could be forgiven for assuming that this would mean 18%, **but it doesn't**. In GCSE maths, students are taught about a widely-accepted discrepancy in the international weights and measurements system, i.e. the litre doesn't 'fit', and doesn't 'share' the prefixes like 'milli' in the way that the other weights and measures can. Due to this lack of equivalence concerning the litre, 1litre (1l) of water (at room temperature and sea-level pressure) weighs 1,000 grams (1,000g = 1kg). Therefore, 1 millilitre (1ml = 1/1000th of a litre) weighs 1 **gram (1g)**, not 1 milligram (1mg = 1/1000th of a gram).

The electronic cigarette cartridge in question would have held approximately 1.1ml of 'eliquid' (nicotine solution) which at 18mg/ml would equal 20mg of nicotine. Easy enough for a layman to assume that this was 20%, but **the scientists in the lab should have known better**. LACORS took these results at face value and published their press release accordingly. Various members of the electronic cigarette community (including this author) have corresponded with Jane MacGregor at LACORS about this, and have carefully explained the error, yet **LACORS refuse to publish an erratum, correcting the mistake**.

Unfortunately, the perpetuation of this miscalculation has led directly to a situation where Britain's smokers – many thousands of whom have already made the switch away from smoking tobacco (with its certain health risks) to electronic cigarettes (which experts suggest are as risk-free as quitting smoking altogether) – are facing the removal of these products from sale in the UK by a system which supports tobacco products as the most readily available and easily accessible nicotine products.

The MHRA (Medicines and Healthcare Products Regulatory Agency) is consulting on whether to bring all nicotine containing products (except tobacco cigarettes) within medicines licensing, which would be prohibitively expensive and would result in the destruction of the UK electronic cigarette industry. The motivation for this is questionable at best, since the MHRA is largely funded by the Pharmaceutical Industry, which produces existing NRT products. These products are competitively threatened by the growing success of electronic cigarettes.

The MHRA's consultation came about as a direct result of recommendations made by LACORS in a letter to the Department of Health <http://www.lacors.gov.uk/lacors/NewsArticleDetails.aspx?id=22395>, dated 3rd September 2009. Under the heading 'Next Steps', it reads:

“We strongly urge the Department of Health to review the definition of “tobacco products” within existing legislation. An amendment to the legislation to include e-cigarettes in the same category as other tobacco products would assist regulatory officers in the control of these products and help businesses in understanding what compliance is being required. Such legislative change would need to be future-proofed to ensure that other “creative” or “novel” devices and products which may be developed would not fall outwith the legislative controls. An alternative position would be for the MHRA to regulate these products in the same way that they currently regulate Nicotine delivery systems.”

It is difficult to see how electronic cigarettes could fit into tobacco legislation, since the Electronic Cigarette Industry is completely separate from the Tobacco Industry. The tobacco legislation is entirely centred around an acceptance of the extremely hazardous nature of tobacco products, with their well-documented history of causing disease and death. Electronic cigarettes are in an entirely different position, with a growing body of evidence suggesting that

these may well be life-saving devices for smokers. There has never been a reported incidence of harm to anyone using electronic cigarettes anywhere in the world during the 6 years since they first appeared on the global market.

It is interesting to note, though, that the LACORS suggestion to the Department of Health regarding the MHRA's regulating electronic cigarettes appears to be a 'second-best' alternative. The Electronic Cigarette Industry was not made aware of any discussions concerning bringing these products within tobacco legislation. Perhaps the Department of Health recognised the potential health benefits of electronic cigarettes and felt that medicines licensing and regulation would be a better option. Unfortunately, as indicated above, this is not a viable option.

The Royal College of Physicians, over several years, has been calling for independent regulation of all nicotine-containing products:
<http://bookshop.rcplondon.ac.uk/contents/a7b2d652-288a-4c13-bc7b-25bf06597623.pdf>
including tobacco products. They point out the discrepancies which occur when vested interests (such as the Tobacco Industry and or the Pharmaceutical Industry) are involved with regulatory procedures. To date, this has resulted in tobacco products being the most widely available and accessible. The Royal College describes this regulatory imbalance as 'irrational'.

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