

# Law Enforcement

## Road Traffic

The role of alcohol in road traffic collisions, particularly those resulting in death and serious injury, is a major international problem. The risk becomes proportionately greater as the alcohol level rises, so that most countries now have legislation which defines the maximum level of alcohol a person may have in his or her body while driving. To enforce this, the Police in most countries rely on breath analysis for alcohol measuring purposes.

Screening instruments are used at the roadside – such as on suspicion, or after a collision or traffic violation; or, if the law allows, purely at random – to determine whether the suspect driver should be subject to further investigation regarding his or her alcohol level.

If this screening test is positive the driver is then generally arrested and taken for breath analysis using an evidential instrument: this may be conducted in a Police vehicle or at the Police Station – depending on the instrument in use, as well as the local laws and practice. As the name 'evidential' indicates, this type of instrument produces what is generally the only quantitative evidence of the driver's actual body level for use in any subsequent Court proceedings.

## Under-Age Drinking

The increasing use of alcohol by under-age persons is a trend with its own social implications, especially as such individuals can cause much annoyance and disruption in their communities. They are also very likely to go on and develop alcohol dependency problems in later life. Breath analysis, such as with **AlcoBlow®**, provides an easy method of detecting such activity. Also, a suspect container – such as a squash bottle or coke can – can be quickly and easily tested, to determine whether it might contain illicit alcohol.

## Prisons

The possession and use of alcohol is generally prohibited in prisons: this includes inmates, visitors and staff alike. In fact, no individual is usually permitted to enter such an establishment if they have alcohol in their body. Breath analysis provides a quick, simple and objective method of enforcing compliance with these rules.

Suspect fluids and containers can also be rapidly tested, to detect any illicit brewing operations by inmates.

# Commercial and Industrial

Alcohol abuse by company staff may result in accidents, so resulting in damage to property and injury to staff. In the UK, under the Health and Safety at Work Act 1974, a company director has a legal responsibility to provide a safe working environment for all: this calls for alcohol testing of all employees, at all levels, at least as a preventative measure.

But alcohol usage can also result in reduced and low quality work output, damaged customer relations, and poor company perception; as well as potentially critical errors, such as in computer operation. Each of these will have a negative cost impact to the company. Then there are the issues of increased absenteeism and sickness, more frequent lateness for work, and increased risk of theft of property and cash from the company and other staff. Each of these carries a cost.

Also, if it is shown that a person had alcohol in their system at the time of an 'accident', it may have significant implications in terms of later financial claims for damages against the company and/or their insurance company.

Some companies rely simply on observation by other staff members – such as supervisors, gate-staff, or even qualified medical staff. But this method of alcohol detection is generally insufficient: this is because experienced drinkers are often skilled in hiding the outward symptoms of alcohol intoxication, even though they are still impaired with respect to reactions, coordination and complex skills. So to rely on visual perception alone is not good enough: by the time the at-risk individual is so identified it is generally too late. And of course, by simply testing only after an accident can never really be effective: the damage is already done!

To counter these problems, which will be present to some extent in every company [and the lack of evidence to the contrary should not lead to the conclusion that a problem does not exist], many commercial organisations conduct breath testing, according to any or all of the following regimes. These should be defined in a company policy document, the contents of which must be fully understood by all staff:

**Pre-Employment:** a breath test at interview establishes the company's policy on alcohol right from the outset

**Random:** anybody, anytime

**100/150%:** everyone is tested at least once a day, or perhaps once a week, and half are then tested a second time in that same period – but always of course at a previously unknown time

**For Cause:** after any defined 'incident' or 'accident'

**On Suspicion:** an individual showing signs of intoxication, or who may be consistently late for work, or who is frequently absent through sickness

**100% on Entry:** everyone entering a safety critical area – such as a mine, high-rise construction site, power station or oil rig – is tested. Some people may also be tested on exit from the facility, to ensure their abstinence from alcohol while they were at work

# Medicine

Breath testing plays a key role in several areas of medicine; for both patient welfare and research into the prevalence of alcohol usage and abuse in today's society:

## Accident and Emergency

- Differential diagnosis of coma
- Monitoring recovery from coma in head injury cases
- Accident cause investigation
- Avoidance of potentially dangerous drug-alcohol interactions
- Early detection of a patient's alcohol problem

**Alcoholism Treatment**

Regular breath testing of alcohol-problem patients undertaking withdrawal treatment programs provides an effective assurance of compliance: it also easily and objectively detects any deviation from it.

**General Practice**

Some General Practitioners now breath test patients whom they suspect may be developing an alcohol problem. Any detectable level of alcohol in a person's body in the morning may suggest heavy the consumption the night before; while a high level at any other time is always significant – especially if either or both these situations occur on a regular basis. It is of course accepted that the sooner a person's alcohol problem can be detected, the more chance there is of successful, subsequent treatment.

## Personal, Self-Testing

**Self**

It can be dangerous for a person to self-test during or shortly after a drinking episode to determine if they are legal [alcohol-wise] to drive: this is because their alcohol level may still be rising at the time of the test. However, a breath test several hours later, such as the morning after a party, will help the individual avoid driving when they may still be over the limit.

**Courtesy**

Managers of licensed establishments may consider having breath test equipment available for use by their patrons, such as to give them an objective measurement when deterring them from driving.

Hotels may also offer the use of such equipment to guests checking out and planning to drive early in the morning, where they may have over-indulged the day or night before.

This self-testing facility may be offered by the establishment as a free-of-charge courtesy, or as a chargeable service to cover the cost of the equipment.

## Education and Research

Schools, colleges and universities use breath alcohol detection devices in a variety of applications, such as:

- Experiments on alcohol effects, and doses versus breath levels
- Research in pharmacology, physiology and psychology, and more
- Testing students suspected of underage drinking, or of having a potential alcohol problem