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Are Your Cellars Safe?

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Hospitality EXPO – The Irish Industries Exhibition 2014

Are Your Cellars Safe



James Murphy, Lecturer & Author – Dublin Institute of Technology (DIT)

Presentation Overview

- **Introduction**
- **Health and Safety** – general regulations and safety issues, safety statements.
- **Identifying the hazards to reduce risks** – best practice procedures.
- **Cellar safety management** - guidelines and the HAS, safety techniques, safety regulations and risk assessments .
- **Cellar Hygiene** – risks and prevention.
- **Conclusion**
- **References**

Introduction & Rationale

- **Bar owners** have to be more concerned about health, safety and security issues.
- This is the result of a variety of factors, most notably **recent legislative changes** at national and international level and the **subsequent high costs of accidents** (including costs relating to litigation and compensation).
- **Poor health, safety and security standards** place staff members and customers at risk of serious injury if not death; employers suffer in terms of **lost productivity and potentially higher premiums** and the morale of the staff, as well as the industrial relations climate in the bar, can be adversely affected.
- At a minimum, bar owners should have a **practical understanding** of the local and national legislation in this area.
- They should also ensure, if necessary **by enforcement** that their staff members **to follow proper safety and security standards.**



Are Your Cellars Safe ? – James Murphy Lecturer & Author DIT

Health and Safety

General Regulations on Safety Issues



In every country or state directives are incorporated into legislation through regulations (normally referred to as acts).

- **The physical environment of work, safe use of equipment:** mandatory to provide the right equipment in good working order, includes safety devices and warning notices, properly maintained and regularly checked, staff training.
- **Personal protective equipment (PPE):** (PPE) must be provided one piece of equipment per individual staff member (headgear, eye glasses, earplugs, gloves, safety shoes etc). PPE must be suited to the task, used properly, and properly maintained. Employees must be trained to use PPE, and are required to report any defective equipment.
- **Manual handling of loads:** bar owners must minimize amount and degree of manual handling that must be done by their staff members. Where handling is done, it is a requirement that risk-taking be minimized by having proper equipment, and by strict adherence to safety procedures. Employees of the bar should be provided with information on weight, center of gravity, and any special handling requirements for any load, in addition to being trained to handle equipment properly.
- **The use of electricity:** Electrical sockets may not be overloaded, for example, and faulty wiring must be replaced. A proper identification system must be used with each piece of electrical equipment along with the proper marking scheme. All new electrical installations have to be installed by a certified person and staff members have a duty to report faulty electrical requirement.
- **First aid:** All bars are required to have minimum first aid equipment. Arrangements regarding first aid must be recorded in the safety statement.
- **Emergency procedures:** Bar owners are legally required to have emergency plans that include provision for the safe evacuation of employees and the provision of notices relating to such. Emergency plans may be attached to the safety statement and must be in located in full view of all staff members.

Health and Safety

Safety Statements

Every bar owner is obliged to have a safety statement, which must be made known to all employees, this safety statement should;

- specify the manner in which the safety, health and welfare of staff employed shall be secured
- be based on an **identification of the hazards** and an assessment of the risks to which the safety statement relates
- specify clearly the **co-operation required from staff** and the **names of the persons** responsible for safety in the bar.
- It is the duty of every bar owner to make each staff member **aware of the safety statement and allow them access to it.**
- **Staff members have a right to be consulted** in regard to any proposed changes in the safety statement, and to information as to whether the introduction of new technology or changes in the organization of work in the bar will affect their health and safety.
- **Employers must:** provide a safety statement, consult with employees with respect to health and safety, obtain specialist advice on health and safety, ensure a safe working place, safe access and egress, safe systems of work, competent supervision.

Identifying the hazards to reduce risks

The major best practice procedures which will help you towards completing your safety policy towards your cellar area include;

Manual Handling

The most common injuries in the cellar area are to the back, neck and ribs. Manual handling causes a great deal of injuries across all workplaces and can lead to long-term incapacity. Lifting and carrying heavy items or pushing and pulling can be a major source of these injuries.

Slips, Trips and Falls

Slips, trips and falls are the second most common cause of accidents in the cellar area. About 75% of all tripping accidents are caused by obstructions. Areas outside and walkways to cellars, stores & cold rooms can be the worst housekeeping areas. Spills are a common occurrence in the sector. Trailing cables can be a common occurrence.

Cuts, Bruises

Many accidents occur as a result of sharp items (broken bottles in bottle bins), faulty equipment or stock not properly stored in cellars (packing cases too high).

Chemicals safety, labelling, never mix chemicals, follow instructions, protective clothing, safe storage.

Machines and Equipment

The cellar area can be a dangerous one. There can be a wide variety of machinery and much of this machinery can pose a hazard to those operating, cleaning or maintaining it. Moving parts can catch loose clothing, hair, cloths and jewellery.

Fire prepare, raise the alarm, turn off close the door, leave the building, follow procedures.

Electrical including Falling objects

Cellar Safety Management

- The **responsibility of cellar health and safety** traditionally lies with the bar owner and their management team.
- The **standard legalisation** in this area can differ from country to country.
- Most countries will have **specific guidelines for the safe working in cellars** of pubs and licensed premises (**Guidelines for Safe Working in Cellars – HSA: next slide**)
- In some circumstances bar staff members are offered little or no proper **training surrounding the cellar area and their knowledge of the hazards** and risks associated with all types of cellar equipment including highly dangerous gas dispense systems is sadly very limited.
- **Terrible accidents and fatalities occurring in pub cellars.** The majority of these incidents have occurred because of unsafe conditions and a serious lack of proper investment coupled with the necessary staff training required in this area.



Guidelines for Safe Working in Cellars (HSA)

Storage of the gas cylinders outside the building significantly reduces the risk. However, the piping is also subject to potential leaks at junctions, particularly in the case of manifold systems. When these are located within a cellar or other room, adequate ventilation or gas monitoring will be necessary.

A SAFE SYSTEM OF WORK

The publican must devise and implement a safe system of work. This is a controlled and considered way of doing work which eliminates or reduces the risk to health and safety as far as practicable. It sets out the manner in which the work is to be done and the precautions to be taken. The precautions required will depend on the conclusions derived from the risk assessment.

A safe system of work will normally include the following elements:

- 1 Deliveries should be arranged to keep gas cylinder numbers in the cellar at a minimum.
- 2 The gas dispense area should be kept tidy and all cylinders securely tied.
- 3 In the event of a significant leak of dispense gas, either adequate and reliable ventilation should be available to refresh the atmosphere or a gas-monitoring system with warning alarm should be installed.
- 4 Access to confined spaces should be restricted to designated personnel. Personnel who operate the dispense gas system, should be suitably trained to follow the gas supplier's instructions (including emergency procedures).
- 5 The publican should ensure that supplier-warning signs are erected in a suitable location and that these signs are maintained.
- 6 The publican should make designated personnel aware of the specific risks associated with dispense gas (asphyxiation etc.).
- 7 An annual inspection of the dispense gas system should be carried out by a competent contractor.

- 8 Associated safety equipment, such as ventilation fans or a gas-monitoring system, should be inspected and maintained in accordance with manufacturer's instructions.
- 9 The publican should carry out a weekly visual inspection of the dispense gas pipe-work and manifold system to detect leaks.
- 10 Emergency arrangements should be in place, including a system of raising the alarm and effecting evacuation. Relevant personnel should be trained in these procedures.

RESPONSIBILITIES OF DISPENSE GAS SUPPLIER (GAS INSTALLER)

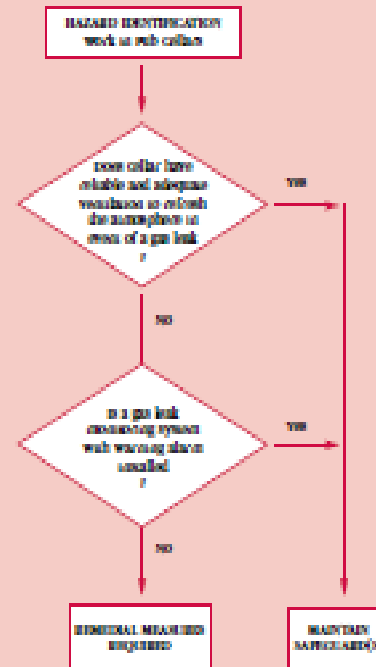
When it is evident to the dispense gas installer/supplier that a serious or unacceptable risk would arise in the event of a gas system leak, this should be brought to the attention of the publican/clients. The degree of risk will depend on the quantity of gas that could leak and the degree of ventilation provided in the cellar. The gas supplier has a duty to ensure that higher employees and/or persons under higher control are not knowingly put at risk in a cellar.

The following is a useful publication which gives guidance on the installation, operation and maintenance of dispense gas systems:

Code of Practice for Dispense of Beer Systems in Licensed Premises, 1994, issued by the Brewers and Licensed Retailers Association (now the British Beer and Pub Association)

RELEVANT LEGISLATION

- 1 Safety, Health and Welfare at Work Act, 1989
- 2 Safety, Health and Welfare at Work (General Application) Regulations, 1993
- 3 Safety, Health and Welfare at Work (Confined Spaces) Regulations, 2001 and supporting Code of Practice "Safe Work in Confined Spaces"



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GUIDELINES FOR SAFE WORKING IN CELLARS OF PUBS AND OTHER LICENSED PREMISES



Cellar Safety Management

Cellar Safety Techniques:

- rotate the cellar's stock regularly, check for out of date products
- delegate staff members to control the organisation and layout of the cellar
- only stack kegs two high
- electrical wiring must be standard in line with local regulations, also don't overload cables or socket outlets
- all gas cylinders for beer dispensing should be safely stored, upright and placed behind the chains anchored to the wall
- never tamper with high pressure gas reducing valves
- all detergents must be properly labeled and safely stored preferably in locked cabinets or high shelves, do not mix detergents
- ensure a good level of light in the cellar area
- avoid any build up of litter and keep passageways clear
- Co2 leaks are highly toxic and can kill; this is why in most large bars now they have a fixed gas monitoring alarm systems fitted (see below).

Safety Regulations and Risk Assessments

- Implement a proper risk assessment where risks are identified and managed, ideally this assessment should be carried by a competent person for example a private health and safety consultant
- to implement measures to minimise risks to anyone entering the confined spaces in your bar, this could involve installation of forced ventilation and Co2 monitor alarms systems
- to provide training to members of staff, which must be properly recorded
- to incorporate the risk assessment findings in your company safety statement
- to make preparations for a possible emergency.

Cellar Safety Management

Gas Leaks

Gas leaks- dangers and procedures: effects of Co2 on human body

- Co2 is heavier than air; it is odourless, colourless, non-flammable and asphyxiant. It is also **undetectable to the human senses**, therefore you will not be able to smell, taste or see Co2,
- It gathers in **unventilated areas** and displaces air, reducing the oxygen in the atmosphere.
- **Co2 leaks** are highly toxic and can kill; this is why in most large licensed premises now they have a fixed gas monitoring alarm systems fitted. **Co2 Levels:** at between 0.04% - 0.5% levels are safe enough, at 1.50% you feel a shortness of breath and increased heart frequency, between 3-4% you will experience muscular pain, dizziness and nausea towards an immediate danger to life and health finally at levels 9% and above you will experience convulsions, immediate paralysis and death. (See next slide – effects of Co2 on the human body)

Dealing with minor gas leaks (Chapter 7 – p. 134)

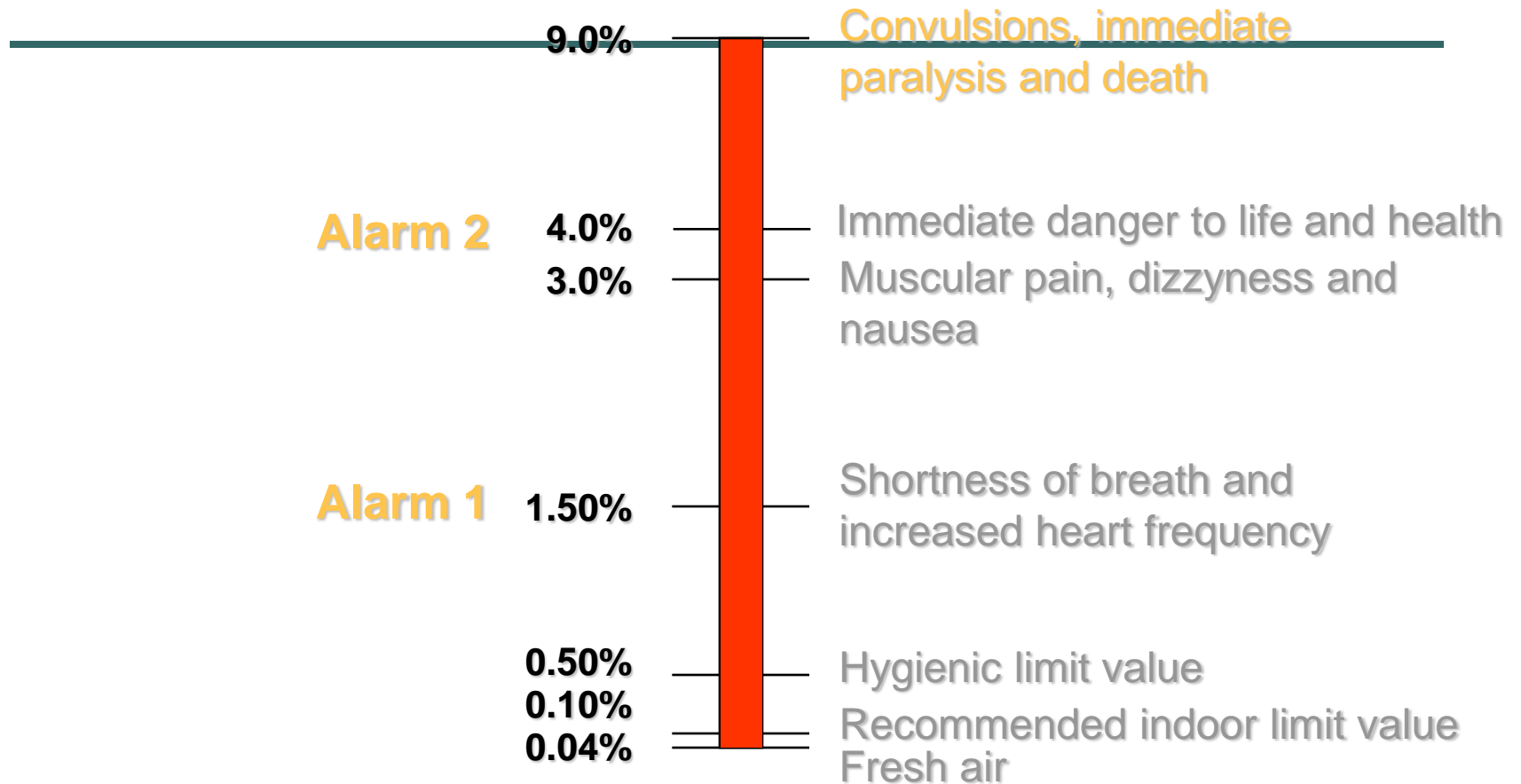
Dealing with major gas leaks (chapter 7 – p. 135)

Consider the following questions; is the area that I work in safe?, is the lighting sufficient?, what are the main hazards in the area, uneven floor, slippery floor, safe storage of stock?, has the cellar area that I work in adequate ventilation or at minimum a Co2 alarm?, if something happens to me down here does anyone know that I am here?, if I enter the cellar area and find a colleague lying on the ground, do I know what to do?

Adopt proper systems for cellar safety, think safety always first. (HSA – Information Safety Sheets – see next slide)



The effect of CO₂ on the human body



Working Safely with Dispense Gas in Pub Cellars (HSA).

Working Safely with Dispense Gas in Pub Cellars Information Sheet

This information sheet informs you of the risks associated with the use of dispense gas in a pub cellar or storage room. It guides employers, employees, suppliers and manufacturers on how to prevent gas leaks and exposure.

It also lists other hazards associated with working in the cellars of pubs and licensed premises.

What is a dispense gas?

A dispense gas is usually a mixture of two pressurised gases, carbon dioxide and nitrogen, used for dispensing drinks. A dispense gas installation includes pressurised gas cylinders (or 'bottles') of varying sizes, together with pipework and control and mixing equipment.

When is dispense gas dangerous?

If a leak occurs, dispense gas can displace oxygen or contaminate the atmosphere.

Dangerous concentrations are most likely to arise:

- in confined spaces with poor ventilation – e.g. a poorly ventilated pub cellar or storage room
- when a large gas leak occurs
- when a relatively small leak continues over a long period and remains undispersed

What are the signs of exposure?

Breathing in dispense gas in sufficient quantities can lead to headaches and dizziness. In sufficient concentration, it can result in lack of oxygen. This can cause impaired judgment, unconsciousness and even death. Asphyxiation (suffocation) can occur rapidly, before a person manages to exit the area. Evacuation is more difficult if it entails climbing stairs from a basement cellar.

As an employer, how can I help prevent gas leaks and exposure?

The risk relating to a dispense-gas leak in a pub cellar depends largely on the quantity of gas that can leak, the cellar design/location and the level of ventilation.



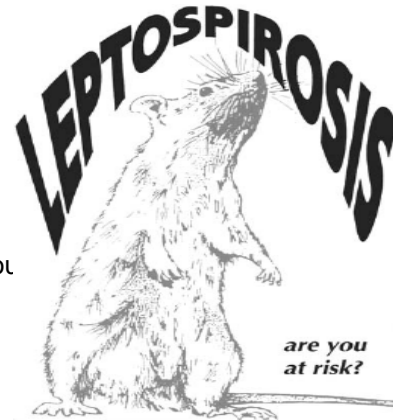
Cellar Hygiene

Who is at risk? Anyone exposed to rats or rat urine:

- Sewer Workers
- Bar Workers
- Cellar Personnel.

How might you catch it?

The bacteria can get into your body through cuts and scratches, the lining of your throat or eyes after contact with infected urine.



How can I prevent this?

1. Wear protective clothing such as gloves when handling materials in the cellar
2. Wash cuts and grazes immediately with soap & running water
Cover cuts and broken skin with waterproof plaster before work continues
3. Always wash your hands after handling materials in the cellar
 - Before eating and drinking yourself
 - Before handling food for customers



Conclusion

- Safety and security for your cellar area involves **training programs** which are meant to teach staff members **how to handle the risks and responsibilities** involved in carrying out their duties.
- In the bar industry **we face hazards on a regular basis** but in part we never pay too much attention to them until a major event or accident occurs, **carry out a complete risk assessment based in your cellar area** this review will highlight;
 1. *Identification of all hazards in the cellar area:* where the hazards actually exist.
 2. *Who is in possible danger:* employees, service individuals, what action should be taken.
 3. *A tidy and well ordered cellar:* helps to reduces safety hazards and enhances the efficient operation of the cellar.

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Web resources

- www.efsa.eu.int European Food Safety Authority.
- www.iso.ch International Standards Organisation.
- http://www.erb.ie/Resources/Documents/Sample_Health_Safety.pdf Sample safety and security statement.
- http://www.mmu.ac.uk/humanresources/health/policy/accident_report_form.pdf Sample accident report form (UK).
- <http://www.hse.gov.uk/risk/casestudies/pdf/pub.pdf> Sample risk assessment form for bars.
- www.howto.co.uk/business/run-a-pub/cellar-management/ Cellar management information and advice.