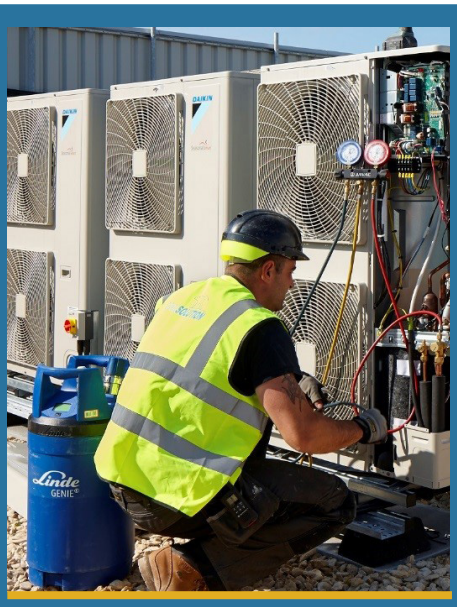
TECHNICAL BULLETIN

COMPETENCE REQUIREMENTS FOR THE RACHP SECTOR

1 OBJECTIVE

The objective of this technical bulletin is to inform members of the competency requirements for working safely in the Refrigeration, Air Conditioning and Heat Pump sector of industry where working with refrigerant gas and refrigerant pipework is involved.



The need for this guidance has come from concerns within the RACHP industry since the introduction of the original F Gas Regulation in 2006 that there is a perception among some end users and main contractors that holding an F gas certificate is proof of competence as a refrigeration engineer or technician.

The tightening up of certain aspects of that regulation in the review of 2014 did not address these concerns as the only changes to competence requirements were in the requirement to be aware of the specificities of handling alternatives to HFCs with regard to the safety issues inherent in many lower GWP gases: flammability, toxicity, high pressure, etc.

A recent incident reported to the BESA Technical Department highlighted one of the dangers in assuming that an F gas qualification equated to competence:

A company employed someone they believed was competent because he held an F gas certificate. The engineer subsequently electrocuted himself on site while investigating an air conditioning system that was not working, resulting in the company asking what the minimum requirement is to be considered competent.

2 F GAS REGULATION COMPETENCY

The F gas Regulation is concerned with minimising greenhouse gas emissions and effecting a phase down of high global warming potential (GWP) gases. It does not define competency in any detail other than to state that people carrying out work on systems containing, or designed to contain, HFCs shall be trained to a minimum standard set out in implementing Acts - currently EC303/2008 to EC307/2008.

These implementing Acts have been used as guidance for setting up the UK certification tests, but the bulk of the testing is theoretical, not practical, and is mainly concerned with refrigerant handling only: pressure testing, leak testing, charging and recovery. Very little attention is paid to electrical work or the hazards attached to working on live electrical systems when fault finding, for example.

3 RECOMMENDED COMPETENCE LEVEL

The BESA would recommend that a competent technician engineer would be defined as being trained and assessed to NVQ/SVQ level 2 as a minimum, and level 3 as best practice, with additional short courses to address knowledge requirements of certain specialist types of equipment, gases and working practices delivered as part of an on-going continuing professional development (CPD) programme. In addition it is desirable that a technician engineer would have carried out a task supervised prior to being left to carry out that task again alone.

Employers have a duty of care responsibility over their employees whereby "no person shall be engaged in any activity where technical knowledge or experience is necessary to prevent danger or, where appropriate, injury, unless he possesses such knowledge or experience, or is under such degree of supervision as may be appropriate having regard to the nature of the work". This statement is extracted from the Electricity at Work Act 1989 but applies to all work for safety related systems or high risk activities where typically "Safe Systems of Work" – the framework within which the competent person operates – are fundamental to achieving a safe outcome.

There is no absolute definition of competence – it means different things to different people and will often depend largely on work responsibilities and duties. The time it takes to become competent varies from person to person and will often depend on, or be influenced by, exposure to occurrences on site as well as experience in dealing with incidents and successful outcomes, and on successfully completing on-going training courses and briefing sessions or toolbox talks. **Ultimately it is up to the employing organisation** to ensure that the person they give a work instruction to is able to carry out the tasks in a safe and effective manner and is given adequate information and support.

4 EXTRACT FROM MANAGEMENT OF HEALTH & SAFETY AT WORK REGULATIONS (1991)

51. Competence in the sense it is used in these Regulations does not necessarily depend on the possession of particular skills or qualifications. Simple situations may require only the following:

a) An understanding of relevant best practice;

b) An awareness of the limitations of one's own experience and knowledge; and

c) The willingness and ability to supplement existing experience and knowledge, when necessary by obtaining external help and advice.

82. The risk assessment and subsequent reviews of the risk assessment will help determine the level of training and competence needed for each type of work. Competence is the ability to do the work required to the necessary standard.