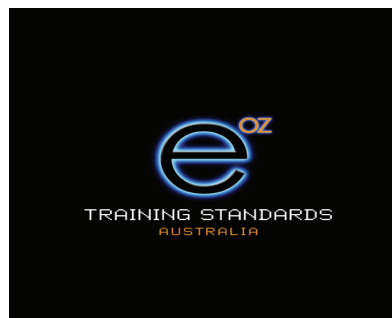


**NATIONAL
SUPERVISION ADVISORY
GUIDELINE
FOR
GAS INDUSTRY
TRAINEESHIPS & APPRENTICESHIPS**



**ElectroComms and EnergyUtilities Qualifications Standards
Body of Australia Ltd, trading as **EE-Oz Training Standards****

September 2006

GAS INDUSTRY
SUPERVISION ADVISORY GUIDELINE
FOR
GAS INDUSTRY TRAINEESHIPS & APPRENTICESHIPS

The Purpose of the Guideline

This Supervision Advisory Guideline has been produced, as advisory information for industry stakeholders, practitioners, and workers who are involved in providing direct or indirect supervision to Gas Industry trainees, apprentices and other training persons. It covers a number of Gas Industry traineeships and apprenticeships, primarily though it covers persons undertaking training in the Certificate II in Utilities Industry Operations and Certificate III in Gas Industry Operations qualifications, found in the UEG06 Gas Industry Training Package.

It should be acknowledged that this Guide was developed through extensive consultations with key stakeholders. It is a first version release and will be amended from time to time to take account of changes in line with legislation, regulations, standards, technology, and/or key stakeholder views. Feedback on suggested changes is welcomed and should be directed to EE-Oz Training Standards for re-submission to key stakeholders.

This Supervision Advisory Guideline also augments the “*National Code of Good Practice for New Apprenticeships*” released December 2000, by the Commonwealth Government. It has been developed to assist both parties (employers and new apprentices) entering into a “*Training Contract/Contract of Training*” with a clear understanding of each other’s obligations and expectations. A copy of the code is available via the New Apprenticeship website or by phone: www.newapprenticeships.gov.au or 1800 639 629.

The Supervision Advisory Guideline presents a model of best practice supervision and suggested safe work practice for Supervisors responsible for supervising trainees and apprentices during their period of competency development. Importantly, it is hoped that in publishing this advisory guide, more sound supervision and safe work practices will emerge, leading to reductions in danger to life, property and the development of a quality workforce for the industry.

Disclaimer: *It should be noted that this Supervision Advisory Guideline does not in anyway replace any Commonwealth, State or Territory legislative and/or regulatory requirements; and does not override any duty of care responsibilities, codes of practice and other relevant codes or regulations pertaining to the respective parties.*

Definitions: (In the context of this Advisory Guide the following terms mean)***Competent Assistant:***

- (a) is appropriately skilled to at least the same level to assist in performing gas work; and
- (b) is appropriately skilled to at least the same level to rescue and provide resuscitation to a person who has stopped breathing or is unconscious because of an incident; and
- (c) has displayed an acceptable knowledge for the type of work to be performed of life saving skills (typically rescue and resuscitation) as well as those required for the work being performed to the satisfaction of the employer; and
- (d) is appropriately skilled to at least the same level to rescue and/or provide CPR first aid to a person who has sustained an injury as a result of an accident caused by an incident; and
- (e) is skilled to at least the same level and in the sole task of observing the work movements of others in a hazardous environment and situation and, is competent in the skill being observed.

Complexity

Means carrying out complex work in a gas industry environment. This work could include working on live infrastructure, coordinating work and conducting isolation procedures including organising work permits, installing and maintaining flow control devices and conducting first on site emergency response procedures.

Live Work

Live Work refers to work on networks that contain gas. That is, existing infrastructure as opposed to infrastructure being laid on a Greenfield site. There is a general requirement that such work should not be performed without due regard for any prevailing legal requirement, standards, or codes of practice. Reference for all gas work, live or dead, should be made to the relevant Australian Standards:

- AS 1697 – Installation and maintenance of steel pipe systems for gas
- AS 2885 – Pipelines – Gas and Liquid Petroleum
- AS 3723 – Installation and maintenance of plastic pipe systems for gas
- AS 4645 – Gas distribution network management

Standard of work

All gas industry work carried out must ensure compliance with AS 1697, AS 2885, AS 3723 and AS 4645.

Supervisor

Supervisor means a person with related technical competence who is charged with the responsibility of assisting, whether directly or indirectly, a Trainee or an Apprentice registered under a “*Training Agreement/Contract of Training*” in their competency development. Supervisors may also be crew leaders or team leaders.

Supervision of trainees and apprentices

Supervision means the level and pattern of control exercised over a trainee or apprentice when allocating work to be performed.

Testing for System integrity and operability whilst commissioned

For the purposes of this Guideline *Testing for System integrity* refers to work that relates to **testing** installations, equipment or articles, that are commissioned and at the following pressure ranges:

- Low (Distribution);
- Medium (Distribution);
- High (Distribution); and
- Transmission (usually higher than 1050Kpa).

Working at heights and confined space

Means working at heights or in confined spaces that require a higher degree of supervision compared to open obstruction free work areas.

Background

Entry into Gas industry vocations is typically through State/Territory approved Traineeships or Apprenticeships. Gas industry Trainees generally take one year to complete and utilise an on-and-off-the-job training regime to develop a trainee's full range of competencies. The appropriate level of supervision that should be applied to a trainee or apprentice during the on-the-job component should be applied with respect to the welfare of the trainee/apprentice in terms of safety and competency development.

The well-recognised tapering (direct-general-broad) pattern of supervision, which includes instructions, dispensed to a trainee/apprentice throughout their training contract is a proven model in developing a competent person.

Determining the appropriate level of supervision to apply is generally dependent on the balance between assuring safety of the trainee/apprentice and the work to be carried out and the experience of the trainee/apprentice. The level and pattern of supervision to be applied is not one that is time based but takes into account a range of factors such as:

- knowledge and skills (on-and off-the-job technical training/learning) attained, and
- previous experience/learning and training/practice and repetition the trainee/apprentice has had relative to each particular task, skill or work function to be performed.

Advisory Guideline for Supervision Practice

During the course of a traineeship or apprenticeship, it would be expected that a trainee/apprentice would have worked across a *representative range of equipment¹*, *consistently* and to *requirements* in the industry with supervision ranging from direct to general to broad. They will also, have concurrently attained the relevant underpinning knowledge and skills to support workplace performance.

¹ *Representative range of equipment, consistently* and to *requirements* is defined in the Gas Industry Training Package. This information is detailed in the Evidence Guide of the Training Package and may be expanded on in more detail, in related Work Performance Specifications (WPS), where appropriate.

The trainee/apprentice having worked under these conditions would have the opportunity to develop the relevant competencies and, accordingly been certified as a qualified Gas industry worker by a Registered Training Organisation (RTO). This should assure prospective employers that as a qualified Gas industry worker, they have attained sufficient depth and breadth to be able to perform across a variety of contexts, and respond and manage a number of contingencies not previously undertaken.

This advisory guideline puts forward a suggested best practice model of supervision that may be applied to trainees and apprentices in the Gas industry. Supervisors can use it as a guide when planning their supervision responsibilities and allocating a range of work functions and activities in the workplace to trainees and apprentices.

In providing advice relating to the supervision of trainees and apprentices, it is suggested that an entity/business or person employing a trainee or apprentice should:

- take all reasonable steps to ensure supervision is carried out by a person that is appropriately qualified, or skilled (where formal qualifications do not exist), and competent to carry out the work in question unsupervised;
- take into consideration (see below) issues related to the use of trainees/apprentices as Competence Assistants, prevailing legislation, the obligations of employers supervising trainees/apprentices and, where applicable, Regulator Requirements for Gas industry working; and
- take into consideration the kind of work being undertaken, particularly where regulated work applies; and
- have regard to the level of competence of the trainee/apprentice being supervised for the particular task, skill or activity to be performed, with the goal of supervision progressively diminishing to broad in the third stage – with the exception of “first time” work.

In determining the level and pattern of supervision to discharge to a trainee or apprentice in relation to the work whilst in training, several factors are taken into account. These are knowledge attained, previous experience and training the apprentice has had relative to each particular task, skill, or work function to be performed. The pattern of supervision will typically range from *direct, general* to *broad* (see attached Supervision Advisory Guideline Table for detailed information on each). Time served is not a determinate but a factor for consideration.

Competent Assistant

Trainees and apprentices who are new entrants into the industry and who have not acquired relevant skills and knowledge are not to be used as competent assistants in their initial period of training as per Commonwealth, State or Territory legislative or regulatory requirements. Thereafter, they may be appropriately utilised as a competent assistant, but only if they have been suitably trained and have attained an adequate and equivalent level of knowledge and skill as required by the work to be performed and any legislation and/or prevailing industry guideline/s.

Legislation

This guideline should be read in conjunction with any relevant Commonwealth, State or Territory legislative requirements. It does not replace or override any obligations whatsoever, whether legislative, under duty of care, or other dominant rulings that apply to the respective parties.

Obligations of employers supervising trainees and apprentices

Employers are responsible for supervising the development of a trainee/apprentice. In discharging supervision, supervisors should have the appropriate and full range of technical competencies for given work². In addition, they should have an understanding of supervision related to trainees and apprentices, such that they are familiar with the level of supervision that should be applied for the given work and how this should be varied dependent upon the knowledge, skill, and experience of the trainee/apprentice.

The following information is to be used as a guide only.

1. A “*person in training*” under a “*Training Agreement/Contract of Training*” is a person who is undertaking, but has not completed:
 - (a) an approved traineeship or apprenticeship; or
 - (b) a training program approved by the relevant State/Territory Training Authority.
2. Employers should take all reasonable steps to ensure that “*persons in training*”:
 - are not exposed to situations to which they have no training or experience.
3. The level of supervision to be discharged to trainees/apprentices should be in accordance with any prevailing regulatory requirement and, appropriate for:
 - the type of regulatory work performed; and
 - the adequacy of the “*person in training*”; and
 - an assessment to confirm relevant knowledge, skill and experience of the “*person in training*” is evident.
4. Trainees or apprentices shall be advised and instructed in all OHS requirements such as JSA, CPR and rescue techniques; and the correct use of personnel protective equipment (PPE), safety equipment; and testing equipment. Appropriate use of protective work clothing, work footwear, safety glasses and other safety essentials are a necessary part of accident prevention practices and also should be advised.
5. Employers/supervisors should take all reasonable steps to ensure trainees and apprentices record their workplace activities using an approved workplace recording system (eg logbook, work evidence collection portfolio, or Profiling data entry cards where available) that covers: work exposure/practice undertaken against industry standards, the level of supervision provided, equipment worked on, dates, and other relevant important information.

Regulator Requirements for Gas Industry Vocations

It is a common requirement of Gas regulatory authorities in each State/Territory that Gas industry work is performed in accordance with the respective regulations, codes of practice and Australian Standards. A person carrying out unsupervised Gas industry work should be appropriately qualified or experienced. With the relevant qualifications and/or experience, a person may carry out a range of work without supervision. Trainees and apprentices however, provided they are engaged under a “*Contract of Training*” and are appropriately supervised are generally permitted to perform relevant Gas industry work.

² Due to the fact National Gas Industry qualifications are relatively new, some supervisors may not possess a formal Gas industry qualification. These supervisors though, will have the relevant skills and experiences.

The supervising Gas industry worker is obligated in taking all reasonable steps to ensure that all Gas industry work is checked, tested and complies with appropriate Acts, Regulations, Codes of Practice, and Australian Standards.

Employers of Gas industry workers and Gas industry workers themselves, (which includes trainees and apprentices), must be aware of, and comply with the requirements of any local State/Territory Gas industry Act, local supply authority requirements, Common Law requirements (duty of care), Codes of practice, permit systems, and/or any other relevant code or regulation. Information regarding applicable requirements should, in the first instance, be directed to such bodies.

Testing for System integrity and operability whilst commissioned

Testing for system integrity should not be undertaken by trainees, but where it is absolutely necessary, it must be undertaken under the direct supervision of a skilled person. All such work should always include:

- compliance with any legislation, regulation(s), standard(s) or code(s) of practice
- the establishment and use of safe systems of work, including safe work practices³
- the development and use of a written risk assessment, and Job Safety Analysis (JSA)
- use of appropriate tools and equipment, and
- work processes are in place to assure safety of the installation, personnel, and property.

Working on live gas infrastructure

Trainees/apprentices in their training program will work with live gas infrastructure subject to skilled, direct supervision. This work will be carried out in accordance with the relevant Australian Standards which include the following:

- AS 1697 – Installation and maintenance of steel pipe systems for gas
- AS 2885 – Pipelines – Gas and Liquid Petroleum
- AS 3723 – Installation and maintenance of plastic pipe systems for gas
- AS 4645 – Gas distribution network management

The attached tables of “**Supervision Advisory Guideline Table for Gas industry Trainees and Apprentices**” are proffered for use as a guideline to supplement and further clarify the suggested supervision requirements included in this guide. The Supervision Table(s) should be read in conjunction with this part of the Supervision Advisory Guideline. It should be acknowledged that the level of supervision will vary dependent upon the knowledge, and level of skill and experience of the trainee/apprentice, as pointed out above. The decision is a matter for the Supervisor to determine on a case-by-case basis.

The degree of supervision, *direct*, *general* or *broad* to discharge requires continual assessment of a trainee/apprentice’s knowledge, skill and experience relative to the nature of the task, skill or activity to be undertaken. The degree of supervision may vary from *direct* to *general*, to *broad*, depending on the type of work being carried out on a particular occasion and a particular point in time. Supervisors need to exercise appropriate duty of care and judgement in this regard and take all reasonable steps to ensure that such judgements are not made solely on the bases of the apprentice’s, time served.

³ Company Standard Operating Procedures, Established Procedures and Codes of Practices may also be in force covering this area. Advice should be sought from Gas industry Companies and other relevant authorities (eg Regulators) when performing this work.

With respect to Gas industry work, the respective supervising worker is obligated in taking all reasonable steps to ensure that all Gas industry work is checked and tested and complies with the appropriate Acts, Regulations, Codes of Practice, and Australian Standards.

Attached, Supervision Advisory Guideline Tables for Gas industry trainees and apprentices

ATTACHMENT 1:

Supervision advisory guidelines for Gas industry trainees and apprentices

EE-OZ TRAINING STANDARDS**SUPERVISION ADVISORY GUIDELINES FOR GAS INDUSTRY WORKER
TRAINEES/APPRENTICES**

The supervising Gas industry worker is responsible for taking all reasonable steps to ensure that all Gas industry work is checked, tested and complies with relevant Acts, Regulations, Codes of Practice, and Australian Standards.

Managers/supervisors are responsible for taking all reasonable steps to ensure that a trainee/apprentice's work activities during their tenure are such that they experience a suitable mix/range of work/activities that relate to the competencies associated with their training program. A holistic approach should be taken when allocating work/activities to the trainee/apprentice, and suitable arrangements, such as rotation should be explored where a suitable range of work/activities cannot be provided.

This Supervision Advisory Guideline Table, forms part of the Supervision Advisory Guideline document. It should be read in conjunction with it. The Table typifies the general pattern of Supervision anticipated for a range of work functions applying to a host of Gas industry traineeships and apprenticeships. The term "*Time Served*" is notional. Any decision to apply a specific level of Supervision should be based on technical on and off-the-job knowledge and skills attained, and previous experience/learning, training/practice, and repetition the trainee/apprentice has had relative to each particular task/skill/work function to be performed. Where transition from one level of supervision to another is to occur it should only take place after relevant abilities and aptitude have been effectively verified.

Evidence from Industry suggests that there are three typical levels of supervision that are used in supervising apprentices. These are described hereunder.

1. Direct/constant supervision

This means the personal supervision of a worker – trainee/apprentice, at all times, on a direct and constant basis, within visual contact and/or earshot (audible range). Constant basis refers to the continuous supervision of tasks' being performed for the first time and until skill is demonstrated for the *complexity* of the task and *work environment*.

2. General intermittent supervision

This means the trainee/apprentice does not require constant attendance of the skilled Gas industry supervisor but requires personal contact with a Gas industry worker on a recurrent (periodic) basis when working on Gas industry infrastructure or equipment. Periodic supervision means being under instruction and direction for tasks being performed.

3. Broad supervision

This means the apprentice/trainee does not require constant supervision but requires personal contact with a skilled Gas industry worker on at least a regular/occasional basis when working on Gas industry infrastructure or equipment. Occasional

supervision means being under instruction and direction with checks being carried out on completion of multi-tasks.

**GENERAL – NORMATIVE INFORMATION FOR CERTIFICATE II IN
UTILITIES INDUSTRY OPERATIONS TRAINING
PERSONS/TRAINEE/APPRENTICE**

**WORKING ON GAS NETWORK INFRASTRUCTRE/EQUIPMENT FOR
DISTRIBUTION, TRANSMISSION AND LPG**

Type of Work	Apprentice/Trainee Typical Trainee/Apprentice Stage	Supervision Required
Installation of new services/mains	One Two Three	Direct General Broad
Alterations to mains/services	One Two Three	Direct Direct/General General/Broad
Minor maintenance to mains/services	One Two Three	Direct Direct/General General/Broad
Carrying out loading, unloading of gas cylinders and loading of gas tankers	One Two Three	Direct General Broad

Over a 12 month nominal traineeship stage one is 1-4 months; stage two 5-8 months; stage three is 9-12 months.

**GENERAL – NORMATIVE INFORMATION FOR CERTIFICATE III IN GAS
INDUSTRY OPERATIONS TRAINING PERSONS/TRAINEE/APPRENTICE**

**WORKING ON GAS NETWORK INFRASTRUCTRE/EQUIPMENT FOR
DISTRIBUTION, TRANSMISSION AND LPG**

Commissioning, decommissioning and isolation of mains/services	One Two Three Four	Direct Direct/General General Broad
Maintaining and performing alterations to mains/services	One Two Three Four	Direct Direct/General General Broad
Cathodic Protection operations	One Two Three Four	Direct Direct/General General Broad
Filling/refurbishing LPG cylinders	One Two Three Four	Direct Direct/General General Broad
Processing LPG and performing minor maintenance/alterations to LPG facilities and equipment	One Two Three Four	Direct Direct/General General Broad

Over a 24 month nominal traineeship/apprenticeship stage one is 1-6 months; stage two 7-12 months; stage three is 13-18 months, stage 4 is 19-24 months.