Licensing of Users of Radiation Sources used for Borehole Logging

The Radiation Safety Act 1999 requires all persons who use radiation sources to hold a use licence. Use licences are granted by the Director-General of the Department of Health (chief executive). Only an individual may apply for a use licence.

Use licences may be issued only to persons who have appropriate skills and knowledge of radiation safety and protection, as well as expertise in the use of the radiation source. This information sheet outlines the licensing requirements for persons who wish to use radiation sources for borehole logging.

When is a licence not required?

A licence to use radiation sources for borehole logging is not required if a person:

(i) is assisting another person who is licensed to use radiation sources for borehole logging; and

(ii) is using the sources in the presence and under the personal supervision of the licensed person.

Knowledge and practical competencies

Applicants for a licence to use radiation sources for borehole logging must demonstrate that they have the following knowledge and practical competencies.

Basic knowledge of radiation safety and protection

- basic knowledge of the properties and effects of ionising radiation
- the principles of radiation protection
- the principles of personal radiation monitoring
- requirements relevant to the use of radiation sources for borehole logging

Practical competencies relevant to safe use of borehole logging equipment

- assessing/reassessing risks and hazards during use and transport
- correct and safe methods to operate the equipment
- using and caring for personal protective equipment, safety devices and radiation monitoring equipment
- routine maintenance of equipment and associated devices
- measurements and monitoring of radiation and interpretation of the measurements
- operational/functional checks on equipment and associated devices
- storage and transport of radioactive substances
- source leak testing
- security of radioactive substances
- incident response
Eligibility for a licence

Borehole loggers may require licences to use radiation apparatus (e.g. neutron generator) or radioactive substances to carry out their practice.

If a person wishes to use a radiation source for borehole logging, he or she must complete and submit Form 2: Application for a Licence to Use Radiation Sources. Further information about the use of security enhanced sources is detailed below.

Applicants will be considered eligible for a licence to use radiation sources for borehole logging if, in addition to completing the application form and providing the appropriate application and licence fees, they:

1. submit verification that they have satisfactorily completed a course in radiation safety which has been approved for this purpose by Radiation Health; and

2. provide evidence that their competencies in the use of borehole logging equipment are satisfactory by either submitting:
   (a) a copy of their log book which demonstrates that they have satisfactorily performed at least 300 hours of borehole logging (i.e. actually using the equipment of the type mentioned in the application) under the supervision of a person licensed to use such radiation sources for borehole logging. Each log book entry must be countersigned by the licensed person who is supervising the trainee; and
   (b) a letter from the supervising licensee about the level of competency achieved by the applicant. or
   (a) a copy of an equivalent, and current, licence issued by another Australian jurisdiction, and
   (b) written verification of the applicant’s experience in the safe use of borehole logging. This verification can be provided by the applicant's current or previous employer; and

3. if the applicant is not an Australian citizen, submit evidence of a work visa and relevant immigration papers.

Additional Requirement for a Security and Criminal History Check

Applicants who intend to use security enhanced sources must undergo a security and criminal history check. For example, Am241/Be with an activity equal to or greater than 60 GBq is considered to be a security enhanced source, and applicants applying to use such a source must undergo the check. This security and criminal history check is managed by Radiation Health.

To enable a security and criminal history check to be conducted the applicant must complete and submit Form 31 Application for a Security and Criminal History Check.

Approved radiation safety courses

A list of approved radiation safety courses is available on our website or on request from Radiation Health. Persons who have completed a course which has not been approved should submit full details of the course for consideration by Radiation Health as part of the consideration of their licence application.
Term of Use Licence

A use licence may have a term of one, two or three years. Under the Radiation Safety Act 1999, applications for renewal of licences must be made prior to the expiry of a current licence.

Licensees are required to have and comply with a Radiation Protection Programme for the Transport of Radioactive Materials. The department has prepared such a programme which a large number of licensees are using. A copy of this programme may be found at: www.health.qld.gov.au/radiationhealth/documents/rpptransport.pdf

Enquiries

For further information, please contact the Radiation Health, Health Protection Unit of the Department of Health. The contact details for Radiation Health are:

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<td>Health Protection Unit</td>
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