



Australian Government

ICTCMP502 Conduct radio communications site audits

Release: 1

ICTCMP502 Conduct radio communications site audits

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 7.0.

Application

This unit describes the skills and knowledge required to conduct radio communications site audits and assess compliance of radiofrequency transmissions.

It applies to individuals who are field officers from regulatory authorities and other private and public organisations. They combine technical radiocommunications skills with broader organisational and administrative skills to conduct audits in commercial and community contexts and environments, make recommendations for improvement and follow up by monitoring resulting actions.

Work functions in occupational areas where this unit may be used are subject to regulatory requirements. Refer to the required regulator for details of licensing, legislative or certification requirements.

Unit Sector

Telecommunications – Compliance

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for radio communications site audit	1.1 Discuss need for site audit, arrange approval for formal site access with relevant personnel and determine audit requirements according to required legislation, safety and security arrangements, organisational standards and procedures 1.2 Access existing knowledge management systems that contain required site information 1.3 Prepare documents that contains audit site information and validation lists to be used at the audit site 1.4 Identify staff, equipment and material resource requirements for

ELEMENT	PERFORMANCE CRITERIA
	audit 1.5 Confirm that equipment has been correctly calibrated and labelled for site audit
2. Execute radio communications site audit	2.1 Validate specific site location according to database information 2.2 Perform audit tasks according to organisational policies and procedures and meet authorised personnel on site during agreed timeframes 2.3 Perform transmission and radiofrequency tests against approved specifications 2.4 Check transmitters for licensing conditions 2.5 Check transmission radiofrequency against database list 2.6 Obtain permission to check and alter transmission and radiofrequency 2.7 Determine whether defined site equipment labelling complies with Australian legislation, standards and regulations for conducting radio communications site audits
3. Complete radio communications site audit	3.1 Discuss audit findings with authorised personnel 3.2 Discuss recommended actions that help promote audit compliance 3.3 Issue enforcement actions as required 3.4 Finalise audit administration according to organisational policies and procedures 3.5 Return equipment and resources according to organisational policies and procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Reading	Critically analyses documentation from a variety of sources and records, and consolidates information to determine requirements
Writing	Records and completes organisational documents and correspondence using clear language and correct spelling, grammar and terminology
Oral communication	Presents complex information in formal situations using clear language, tone and pace required for the audience and purpose
Numeracy	Performs mathematical calculations to interpret complex tests results and information

SKILL	DESCRIPTION
	Analyses and synthesises highly embedded mathematical information in a broad range of tasks and texts
Self-management	- Takes responsibility for following policies, procedures and legislative requirements and identifies organisational implications of new legislation and regulations - Identifies and resolves key business issues, processes and practices that may have legal implications
Teamwork	Selects, implements and seeks to improve protocols governing communications to clients and co-workers in a range of work contexts
Initiative and enterprise	- Monitors progress of plans and schedules and reviews and changes them to meet new demands and priorities - Applies systematic and analytical decision-making processes for complex and non-routine situations - Responds intuitively to problems requiring immediate resolution, drawing on past experiences to focus on the cause of a problem rather than the symptom

Unit Mapping Information

Supersedes and is equivalent to ICTCMP501 Undertake radio communications site audit.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTCMP502 Conduct radio communications site audits

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- conduct at least three radiocommunications site audits with different licensing requirements at each site.

In the course of the above, the candidate must:

- determine the need for a site audit and gain access approvals from relevant personnel
- conduct transmission and radiofrequency tests
- monitor non-compliances to confirm actions completed
- document enforcement actions.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- features and functions of test equipment, including:
 - digital radio communications measuring equipment
 - modulation analyser
 - power meter
 - radiofrequency termination
 - spectrum analyser
- licensing database features
- information required to prepare and conduct network site audits
- transmission lines, transmitter and receiver architecture and their impact on radiocommunications audits
- required field measurements, including:
 - carrier frequency

- harmonics
- intermodulation distortion products
- modulation
- radiofrequency power
- specific issues related to antenna installations and their impact on radio communications interference
- types of adjustments that need to be made to audit procedures to meet requirements of particular sites and environmental conditions
- typical issues and challenges that occur in networking site audits and how these are addressed
- legislation, codes, regulations and standards, and work health and safety (WHS) requirements for scoped work.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- sites on which audits may be conducted
- use of field measurement equipment currently used in industry
- required databases, licensing requirements and other site related documentation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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