



Australian Government

ICTCMP501 Undertake radio communications site audit

Release: 1

ICTCMP501 Undertake radio communications site audit

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to undertake a radio communications site audit regarding compliance of radio frequency (RF) transmissions with relevant transmitter licence requirements.

It applies to individuals who may be field officers from regulatory authorities or other private and public organisations. They combine technical radio communications skills with broader organisational and administrative skills to conduct audits in a range of 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 ICT Implementation Guide Companion Volume or the relevant 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 Confirm need for site audit through appropriate triggers and arrange formal approval for site access from authorised personnel 1.2 Clarify audit requirements according to relevant legislation, codes, regulations and standards, including safety and security arrangements, and action required to comply

	1.3 Clarify audit requirements with client or project originator, where appropriate, and incorporate broader audit considerations 1.4 Prepare a hardcopy of site information for use as an audit validation list at site 1.5 Specify staff, equipment and material resource requirements for audit, based on particular site requirements ensuring equipment has been correctly calibrated and labelled 1.6 Check industry requirements for site and obtain industry licence where appropriate
2. Undertake radio communications site audit	2.1 Validate specific site location according to database information 2.2 Undertake audit tasks according to work health and safety (WHS), enterprise procedures and site specific safety requirements, and meet client or representative on site as required 2.3 Conduct transmission and radio frequency (RF) tests against approved specifications 2.4 Conduct check of transmitters for licensing conditions 2.5 Check transmission radio frequency against database list and obtain permission to check or alter transmission or radio frequency where appropriate 2.6 Confirm site meets specific RF WHS requirements and licensing requirements where appropriate 2.7 Confirm defined site equipment labelling comply with Australian Communications and Media Authority (ACMA) technical standards
3. Complete audit administration tasks	3.1 Update or arrange for update of required records regarding audit findings and action required, including liaison with authorised personnel as agreed 3.2 Monitor recommended actions to ensure compliance with findings 3.3 Issue enforcement actions as required 3.4 Finalise audit administration and return equipment and resources according to organisational procedures

Foundation Skills

This section describes the language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description

Reading	1.1-1.3, 2.1, 2.3, 2.5, 2.7, 3.2	Critically analyses documentation from a variety of sources and records and consolidates information to determine requirements
Writing	1.1, 1.3, 1.4, 3.1, 3.3	Accurately records and completes organisational documents and correspondence using clear language and correct spelling, grammar and terminology
Oral Communication	1.1,1.3, 2.2, 3.1, 3.2	Presents complex information in formal situations using clear and convincing language, tone and pace appropriate for the audience and purpose
Numeracy	1.4, 2.3, 2.4, 2.5, 2.6	- Performs mathematical calculations to interpret complex tests results and information - Analyses and synthesises highly embedded mathematical information in a broad range of tasks and texts
Navigate the world of work	1.2, 1.6, 2.2, 2.4, 2.6, 2.7, 3.4	- Takes full responsibility for following policies, procedures and legislative requirements and identifies organisational implications of new legislation or regulations - Identifies and resolves key business issues, processes and practices that may have legal implications
Interact with others	1.1, 1.3, 1.5, 3.1, 3.3	- Collaborates with others sharing information to build strong work groups and avoid behaviours that are not conducive to a productive environment - Selects, implements and seeks to improve protocols governing communications to clients and co-workers in a range of work contexts
Get the work done	1.2, 1.5, 1.6, 2.2-2.7, 3.2, 3.4	- Accepts responsibility for planning and sequencing complex tasks and workloads, negotiating key aspects with others, and taking into account capabilities, efficiencies and effectiveness - 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

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTCMP501 Undertake radio communications site audit	ICTCMP5176A Undertake radio communications site audit	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for ICTCMP501 Undertake radio communications site audit

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Performance Evidence

Evidence of ability to:

- determine the need for a site audit and gain access approvals
- conduct radio communications site audit for at least three sites with differing licensing requirements
- conduct transmission and radio frequency (RF) tests
- monitor non-compliances to ensure actions completed
- document enforcement actions.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain features and functions of test equipment including:
 - digital radio communications measuring equipment
 - modulation analyser
 - power meter
 - RF termination
 - spectrum analyser
- describe the features of licensing databases
- describe information required to prepare and conduct telecommunications audits
- explain legislation, licensing requirements for transmitters, codes of practice and other formal agreements that directly impact radio communications site audits
- give an overview of transmission lines, transmitter and receiver architecture and their impact on radio communications audits
- list required field measurements including:

- carrier frequency
- harmonics
- intermodulation distortion (IMD) products
- modulation
- RF power
- explain specific issues related to antenna installations and their impact on radio communications interference
- explain specific work health and safety (WHS) requirements that impact the conduct of radio communications audits, including:
 - use of equipment
 - use of RF protective equipment
 - other personal protective equipment
- explain 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 telecommunications site audit and how these may be addressed.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the Telecommunications – Compliance field of work and include access to:

- sites on which audits may be conducted
- use of field measurement equipment currently used in industry
- relevant 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.

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