

Certification Requirements: Elevating Work Platform Inspection

Issued under the Authority of the
Certification Board for Inspection Personnel (CBIP), New Zealand

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1. Introduction

These Certification Requirements: Elevating Work Platforms Inspection (CR EWP Inspection) must be read in conjunction with CBIP's Certification Requirements: General (CR General). Together, these documents define the requirements for the issue of discipline recognition in EWP inspection.

CBIP's EWP certifications are based on AS 2550.10 *Cranes, hoists and winches - Safe use, Part 10: Mobile elevating work platforms*.

The certifications are referenced in the WorkSafe NZ *Best Practice Guidelines // Mobile Elevating Work Platforms* – August 2014 as an acceptable means of meeting the definition of a Competent Person for Six Monthly and Major inspections.

2. Scope

CR EWP Inspection covers the qualifications, training, experience, and examination requirements for the issue of a discipline recognition to EWP Inspectors performing in-service and periodic Major inspection of elevating work platforms (EWP). Newly constructed EWPs and EWPs of novel design must be certified initially by a Chartered Professional Engineer (CPEng)¹.

A certified inspector must hold a CBIP Certificate of Competence before carrying out inspections to represent themselves as a CBIP-certified inspector.

While holding EWP Cat 1 is a prerequisite to obtaining EWP Cat 2 (Section 4.4 refers), an EWP Cat 2 Inspector can only perform six-monthly in-service inspections of EWPs if they hold a current Certificate of Competence for EWP Cat 1.

Discipline recognitions granted under CR EWP Inspection are:

Elevating Work Platform Category 1 (EWP Cat 1)

An EWP Cat 1 inspector performs six-monthly in-service inspections of EWP types required in New Zealand in accordance with AS 2550.10 - *Cranes, hoists and winches – Safe use, Part 10: Mobile elevating work platforms* and the Best Practice Guidelines // Mobile Elevating Work Platforms – August 2014.

Elevating Work Platform Category 2 (EWP Cat 2)

An EWP Cat 2 inspector performs the Major inspections of EWP types required in New Zealand in accordance with AS 2550.10:2006 *Cranes, hoists and winches – Safe use, Part 10: Mobile elevating work platforms*.

The primary roles of an EWP Cat 2 inspector are the:

- i. preparation and implementation of an Inspection and Test Plan (ITP), and
- ii. review of the EWP maintenance, in-service and disassembly inspection results; and

¹ CPEng means a person who is registered and holds a current registration certificate under the Chartered Professional Engineers of New Zealand Act 2002.

- iii. review of the results of any non-destructive testing (NDT) required by the ITP; and
- iv. review and approval of any repairs that may be necessary; and
- v. supervision of the implementation of any Critical Safety Upgrades that may be required by the manufacturer; and
- vi. supervision and approval of re-commissioning testing.

3. Certification Process

Candidates seeking a discipline recognition must meet the requirements of the CR General Requirements and the CR EWP Inspection.

The certification and application processes are outlined in CR General Requirements.

4. Pre-Requisites for Discipline Recognition

Candidates must have qualifications, training and experience which demonstrates understanding of EWP types including their design, maintenance and operation.

Candidates must demonstrate proficiency of welding process technology, metallurgy, weld testing and inspection, standards and specifications relating to steel structures to at least the level of Welding Supervisor (AS 2214) or be able to demonstrate equivalent knowledge. This knowledge could be demonstrated by holding a current Welding Supervisor's Certificate (AS 2214) (WS), CBIP Certified Welding Inspector (CWI) or Senior Welding Inspector (SWI) Competence Certificate.

Please note: Candidates applying for EWP Cat 2 certification must hold a CBIP EWP Cat 1 Competence Certificate.

EWP Cat 1 Inspector

4.1 Qualifications for EWP Cat 1

Candidates must hold one or more of the following:

- a) trade qualification in a relevant automotive, electrical, hydraulic or engineering discipline
- b) CBIP Certificate of Competence as a crane inspector (any category)
- c) diploma in engineering from a recognised training establishment
- d) 1st Class Marine Engineer's Certificate
- e) bachelor's or master's degree in engineering or a relevant technology or science
- f) New Zealand Certificate of Engineering or an equivalent qualification
- g) Chartered Professional Engineer.

Evidence of qualification(s) must be submitted with the application.

For candidates whose background does not include one or more of the above qualifications, a Statement of Experience and Competence relevant to these certification requirements from the employing or contracting Recognised Inspection Body may be acceptable.

4.2 Training for EWP Cat 1

Candidates must provide evidence of training in EWP inspection sufficient for them to be knowledgeable in the requirements of section 5.

Training must include knowledge requirements for inspection, including in-service inspection, and practical training on EWP types.

4.3 Industry Experience for EWP Cat 1

Candidates must have a minimum of one years' experience, preferably with increasing experience, in EWP inspection, fabrication, maintenance, operation or similar experience in a related field.

Maintenance and inspection experience will preferably include time under the effective supervision of a CBIP EWP Cat 1 Certificate of Competence holder or equivalent. The experience will include in-service inspections on a range of EWP types and include documentation of results sufficient to demonstrate competence in the requirements of section 5.

EWP Cat 2 Inspector

4.4 Qualifications for EWP Cat 2

Candidates must hold a CBIP EWP Cat 1 Certificate of Competence.

Evidence of qualification(s) must be submitted with the application.

4.5 Training for EWP Cat 2

Candidates must provide evidence of training in EWP inspection sufficient for them to be knowledgeable in the requirements of section 5.

Training must include knowledge requirements for Major inspection and practical training on EWP types.

4.6 Industry Experience for EWP Cat 2

Candidates must provide evidence of three years' experience, preferably with increasing experience, in EWP inspection, fabrication, maintenance, operation or similar experience in a related field.

Maintenance and inspection experience will preferably include time under the effective supervision of a CBIP EWP Cat 2 Certification of Competence holder or equivalent. The experience shall include Major inspections on a range of EWP types, including documentation of results sufficient to demonstrate competence in the requirements of section 5.

4.7 Referee Statement

Candidates must provide a Referee Statement sourced from CBIP's Website and signed by a suitable referee to verify their training and experience meets or exceeds these certification requirements. Refer to CR General.

5. Competence Requirements for Certification

It is an important factor in the safe and reliable operation of any EWP to ensure mechanical integrity, reliability, safety and fitness for purpose and service. It is therefore essential that the inspectors who perform the inspection functions have the necessary knowledge to be competent in the inspections that they perform.

To be certified as an EWP Inspector, candidates must demonstrate the competency and performance requirements shown below.

Cat 1 Inspector	Cat 2 Inspector
General	
The Inspector’s knowledge shall be such that they can converse with specialists and evaluate the results of their examinations. Training in these fields may be required to gain sufficient knowledge.	
Operations and Environment	
Know and understand the operational conditions/history of an EWP to determine where to focus attention during an inspection. For example, an EWP routinely used for demolition work will likely have suffered different wear and possible shock loading not experienced by an EWP used for gaining access for washing roofs. Similarly, an EWP based at an inland location and stored indoors will be less likely to have corrosion defects than one used in a marine environment.	
Electrical, Hydraulic, Pneumatic and Interlocking Systems	
Electrical, hydraulic and pneumatic knowledge is taken as a limited knowledge requirement. An Inspector shall be able to understand the basic principles of these systems and the conditions that may have an effect on the operation of the EWP.	
• An inspector must be able to understand descriptions in the manufacturer’s documentation relating to these systems and how to prove by physically testing each of the interlocks that may be present on a particular EWP. • It is emphasised that acceptance of control system diagnostic tests without physical verification is not appropriate.	• Ability to read and interpret electrical, hydraulic and pneumatic schematic diagrams. • Understand tests required to verify the safe condition of such systems.
Inspection techniques and Non-Destructive Testing (NDT)	
A limited knowledge requirement of the applicability and limitations of various methods and inspection techniques (invasive and non-invasive) used to detect defects or degradation mechanisms in EWPs. Ability to recognise that it may be necessary to supplement the primary method used with further methods to increase confidence.	

Standards	
- Detailed knowledge of WorkSafe NZ Best Practice Guidelines // Mobile Elevating Work Platforms – August 2014 (BPG) - Working knowledge of and access to current versions of any Standards or Codes referenced by the BPG and AS 2550.10	
Working knowledge of AS 2550.10	- Detailed knowledge of AS 2550.10 - Working knowledge of AS 1418.10
Maintenance	
- An Inspector shall be aware of the purpose, tasks and roles of routine and non-routine maintenance activities, how they should be recorded. - A particular focus shall be on the use of non-OEM parts including fasteners. - Ideally, an inspector shall not involve themselves in any hands-on aspect of maintenance to avoid any risk of conflict of interest. Where an inspector is also taking the lead in an overhaul as part of a Major Inspection, they shall keep sufficient records to show a clear line between Overhaul and Inspection.	
While primarily the responsibility of the EWP owner/PCBU, the Inspector shall satisfy themselves that persons or organisations undertaking maintenance on the EWP being inspected are competent to do so.	EWPs imported without maintenance records require Major Inspection. The inspector may not know the previous operating environment or inspection history so must take particular care to ensure the EWP has not exceeded its Design Life. The involvement of a CPEng may be necessary.

6. Examinations

6.1 Examination process

Examination requirements are outline in CR General. Examination of competence consists of:

1. Written examination comprised of multiple-choice questions, and
2. Practical examination based on an assessment of the candidate's inspection of an EWP type in a work-place setting.

The EWP type used in the **Cat 1** practical assessment will be arranged by the candidate and approved by the assessor prior to the assessment taking place.

The EWP **Cat 2** practical assessment will be based on work currently underway for which the candidate is responsible, and records of previous Major inspections overseen by the candidate. Where practicable, the assessment will involve final testing of an EWP which has completed a Major inspection.

6.2 Technical content of examinations

Examiners may assess candidates on the application of industry standards and use photographs and samples illustrating operation and maintenance problems pertinent to inspections of EWP types.

Examinations will assess candidate's ability to demonstrate competencies relating to knowledge of :

- a) legislation and the responsibilities of inspectors,
- b) operation of equipment,
- c) inspection methods and procedures,
- d) safe working during inspection,
- e) materials used for EWP construction,
- f) type and causes of deterioration and defects,
- g) planning and documenting inspections, interpreting, evaluating, and reporting of inspection results (including approval of inspection and test plans) and preparation/approval of any specific inspection procedures required,
- h) maintenance of inspection records,
- i) assessing and editing operating and maintenance records,
- j) welding processes, including use of approved welding procedures,
- k) NDT methods,
- l) review and implementation of repair procedures, and
- m) fitness of equipment for service.

6.3 Recertification examination

Recertification requires the certified inspector to pass a written examination.

6.4 Examination references

A list of allowable examination reference material for written examinations is published on CBIP's Website.