



**CERTIFICATION BOARD FOR INSPECTION PERSONNEL**

**Standard of Proficiency  
for the Certification of  
Elevating Work Platforms Inspectors**

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# **STANDARD OF PROFICIENCY FOR THE CERTIFICATION OF ELEVATING WORK PLATFORMS INSPECTORS**

## **FOREWORD**

This Standard of Proficiency defines the requirements for the issue of certificates of competence to inspectors performing inspection of elevating work platforms within the scope of current Department of Labour approved Industry Best Practice Document or *Approved Code of Practice* as detailed on the CBIP web site, together with any referenced standards, regulations or legislation

The regulatory authority may require inspectors of these platforms to hold a relevant certificate of competence. Certificates of competence also provide a basis for International Accreditation New Zealand to approve inspectors as signatories of inspection bodies.

Certification and re-certification in accordance with this standard confirms the qualifications, training, and experience of elevating work platform inspectors.

The qualifications described by this Standard of Proficiency have been prepared for registration at level 4 on the NZQA framework for Type 1 inspectors and level 5 on the NZQA framework for Type 2 inspectors.

This standard of proficiency must be read in conjunction with the *General Section - Standards of Proficiency for the Certification of Inspectors*.

## **1 SCOPE AND GENERAL**

### **1.1 Scope**

This Standard of Proficiency covers the certification of inspectors performing in-service inspection of elevating work platforms and inspection of newly constructed elevating work platforms.

### **1.2 Certificates of competence**

The certificates of competence which may be granted are:

- (a) Elevating Work Platforms Type 1. (Inspector EWP Inspector Type 1)
- (b) Elevating Work Platforms Type 2. (Inspector EWP Inspector Type 2)

Note 1: Previous standards of proficiency allowed for the award of an EWP Type 1 certificate of competence to candidates who gained Type 2 certification. This practice has been discontinued and Type 1 certification is now awarded only through examination or, in accordance with the recognition and exemption process in Section 4.1.2 below. Existing certificates of competence are not affected but inspectors shall, at the appropriate time, separately renew or recertify their Type 1 and Type 2 certification.

Note 2: Certificates of competence awarded to candidates who are employees of organisations that are not accredited as inspection bodies are for inspection work within those organisations. They may only be transferred to inspection work within another organisation where:

- i. The new organisation is an accredited inspection body, or
- ii. The holder of the certificate of competence has been re-assessed in accordance with Section 4.1.2 below. The costs of any such re-assessment shall be borne by the candidate

## **2 CERTIFICATION PROCESS**

Candidates seeking certification shall satisfy the requirements of the *General Section – Standards of Proficiency for the Certification of Inspectors*, for their category of EWP inspection discipline, by completing:

- (a) The pre-requisite training and experience in Section 3 below for either:
  - Inspector EWP Type 1 certificate of competence, or
  - Inspector EWP Type 2 certificate of competence, and
- (a) The examinations in 4 below for either:
  - Inspector EWP Type 1 certificate of competence, or
  - Inspector EWP Type 2 certificate of competence

## **3 PRE-REQUISITE TRAINING, QUALIFICATIONS AND EXPERIENCE**

Candidates shall complete the following training, qualifications and experience and include with their *Application for Certification* the documentation described in the *General Section - Standards of Proficiency for the Certification of Inspectors*.

The inspection reports provided by the candidate shall include reports no fewer than three different types of EWP from the types listed on the CBIP web site.

### **3.1 EWP Certificates of Competence**

Candidates shall:

Have a total of six credit points for Training, Qualifications and Experience accumulated as described in 3.1 and 3.2 below or, other industrial experience as described in 3. 3:

#### **3.1.1 EWP Inspector Type 1 - Training and qualifications (4 credit points maximum)**

1 credit point maximum from any of the following:

- Successfully completion of an independently assessed and verified CBIP recognised course in EWP inspection.

2 credit points maximum from any of the following:

- A trade qualification in a relevant automotive, electrical, hydraulic or engineering discipline.
- A CBIP certificate of competence as a crane inspector (any category)
- An approved diploma in engineering from a CBIP recognised training establishment.

- Approved 1st Class Marine Engineer's Certificate.
- Bachelor Degree in relevant Technology or Science.

### **3.1.2 EWP Inspector Type 1 - Experience (4 credit points maximum)**

3 credit points for each year of fully documented experience as listed below:

- In the maintenance or inspection of EWP under the supervision of CBIP Certified EWP Inspector Type 1.
- In the fabrication of EWP under a CBIP recognised quality management system.

### **3.2.1 EWP Inspector Type 2 - Training and qualifications (4 credit points maximum)**

1 credit point maximum from any of the following:

- Successfully completion of an independently assessed and verified CBIP recognised course in EWP inspection.

2 credit points maximum from any of the following:

- An advanced trade qualification in a relevant automotive, electrical, hydraulic or engineering discipline.
- A CBIP EWP Level 1 certificate of competence.
- A CBIP certificate of competence as a crane inspector (any category)

3 credit points maximum from any of the following:

- An approved diploma in engineering from a CBIP recognised training establishment.
- Approved 1st Class Marine Engineer's Certificate.
- Bachelor Degree in relevant Technology or Science.

### **3.2.2 EWP Inspector Type 2 - Experience (4 credit points maximum)**

1 credit point for each year of fully documented experience as listed below:

- In the major inspection of EWP under the supervision of a CBIP Certified EWP Inspector Type 2.
- In the design or fabrication of EWP under a CBIP recognised quality system.

### **3.3 Other industrial experience**

Instead of the above credit point assessment, candidates may submit information on other similar industrial experience they have had to the CBIP. The CBIP will advise whether this experience satisfies the pre requisite training, qualifications and experience for entry to the PEI certification process.

## **4 EXAMINATIONS**

### **4.1 Inspector EWP Type 1 and Type 2**

The examinations for EWP Type 1 and EWP Type 2 certificates of competence are comprised of the following:

- (a) Written examination: EWP inspection
- (b) Practical examination: Field assessment and reporting

The standards upon which candidates will be examined are listed in the CBIP website.

#### **4.1.1 EWP inspection**

The EWP inspection paper examines candidates on the knowledge requirements outlined in Appendix B.

It is an open book examination comprised of thirty questions with multi-choice answers plus other questions requiring short narrative answers.

The level of the examination is set, as required, for either Inspector EWP Type 1 or, Inspector EWP Type 2.

#### **4.1.2 Field assessment and reporting**

The practical examination is based on an assessment of the applicant's inspection of elevating work platforms at applicants' place of work. The type or types of EWP to be used in the assessment will be determined by the assessor and will generally not be restricted to a single simple EWP type.

Examiners may question candidates on the application of industry standards and use photographs and samples illustrating operation and maintenance problems pertinent to in-service inspection of elevating work platforms.

- (a) Candidates for Inspector EWP Type 1 certification will be examined on the current Department of Labour approved Industry Best Practice Document or *Approved Code of Practice* as detailed on the CBIP web site, together with any referenced standards, regulations or legislation. In particular, this will focus on the six month inspection and testing requirements.
- (b) Candidates for Inspector EWP Type 2 certification will be examined on the prevailing Department of Labour approved Industry best Practice Document or *Approved Code of Practice* as detailed on the CBIP web site, together with any referenced standards, regulations or legislation. In particular, this will focus on the major inspection and testing requirements.

Candidates are required to demonstrate competence in the following matters pertinent to the inspection and testing of elevating work platforms:

- (a) Knowledge of legislation and the responsibilities' of inspectors
- (b) Operation of equipment.
- (c) Inspection methods and procedures.
- (d) Safe working during inspection
- (e) Knowledge of materials of construction
- (f) Type and causes of defects

- (g) Planning and documenting inspections and reporting of inspection results
- (h) Maintenance of inspection records
- (i) Assessing operating and maintenance records
- (j) Welding processes
- (k) NDT methods
- (l) Review and implementation of repair procedures
- (m) Fitness of equipment for service.

## **4.2 Recognition of other qualifications and exemptions**

The CBIP will consider applications for exemptions from the Inspector EWP Type 1 and the Inspector EWP Type 2 examinations.

Applications for recognition of other qualifications and for exemptions from examination papers shall be made in accordance with the *General Section – Certification of Inspectors*.

## **4.3 Recertification**

### **4.3.1 EWP Type 1**

The recertification exam will entail the applicant re-sitting the EWP Type 1 examination.

### **4.3.2 EWP Type 2**

The recertification exam will entail the applicant re-sitting the EWP Type 2 examination.

## APPENDIX A

### Sample Examination Questions (Informative)

#### Examination Format:

All examination papers are open book. Candidates should bring with them an unmarked copy of whatever references they wish to bring from Appendix A1.

#### Module Examinations

The module examinations questions are in a multi-choice format, on the subject matter given in the competency and knowledge requirements for the relevant module. The pass mark is 70% or higher in each module.

#### Sample – Multi-Choice Questions

- Q1 According to the Approved Code of Practice the testing of fibreglass boom sections is required every:
- a) 6 months
  - b) every year
  - c) every two (2) years
  - d) every three (3) years
- Q2 According to the Approved Code of Practice the stated Safe Working Load (SWL) assumes that:
- a) the machine is set up
  - b) the machine is set up on firm ground
  - c) the machine is set up on firm ground and levelled
  - d) the operator is trained
- Q3 The non-destructive testing method that requires the material being inspected to be ferromagnetic is:
- a) liquid penetrant inspection
  - b) ultrasonic inspection
  - c) magnetic particle inspection
  - d) visual inspection

#### Sample – Short Answer Questions

- Q4 State how you would check the levelling and tilt system on an elevating work platform during the six monthly inspection.
- Q5 State at least 5 (five) safety features that need to be fitted to or be part of an Elevating Work Platform

## **APPENDIX B**

### **Outline of Knowledge Requirements (Informative)**

#### **B1 Introduction - Inspectors all levels**

It is an important factor in the safe and reliable operation of any elevating work platform (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.

#### **B2. General Requirements**

##### **B2.1 Introduction**

The following sub-sections define the core requirements of knowledge required in order to guide candidates on both the examinations and their future work. Appendix B outlines the requirements and knowledge for the Inspector EWP Type 1 and Inspector EWP Type 2.

##### **B2.2 Process operation**

It is essential that an Inspector understand the operation of the EWP equipment's operational conditions and underlying reasons that dictate materials selection in order to determine where give attention to during the inspection.

##### **B2.3 Degradation mechanisms**

An Inspector needs to understand the EWP equipment's operational conditions and underlying reasons that dictate materials selection in order to identify where and what damage, corrosion/degradation mechanisms are expected and consequently where to give attention to during the inspection..

##### **B2.4 Welding**

Welding knowledge is taken as a limited knowledge requirement by means of an Inspector being able to identify the welding processes and have an appreciation of welding and welder approval procedures. As a minimum, an Inspector needs to have an appreciation of the various forms of common welding techniques as well as procedures and welder approvals that apply to the common welding processes i.e. SMAW, GMAW, FCAW, GTAW, SAW.

##### **B2.5 Electrical, hydraulic and pneumatics**

Electrical, hydraulic and pneumatic knowledge is taken as a limited knowledge requirement by means of an Inspector being able to understand the basic principles and have an appreciation of the conditions that may have an effect on the operation of the EWP. As a minimum, the Inspector needs to have an appreciation of:

- (a) the various forms of deterioration that may occur.

- (b) the visual recognition of deterioration, wear and damage to electrical, hydraulic and pneumatic systems.
- (c) the safety aspects for inspecting electrical, hydraulic and pneumatic systems e.g. fuses, interlocks, levels etc.

The Inspector's knowledge on this subject should be such that they can converse with specialists in the field and also evaluate the results of their examinations. Training in these fields is required to create basic knowledge.

## **B2.6 Inspection techniques and NDT**

An Inspector needs to have an understanding of the applicability, safety and accuracy of various methods and inspection techniques (invasive and non-invasive) used to detect defects or degradation mechanisms in EWP. Appropriate techniques used and commonly applied inspection methods include visual and NDT techniques.

An Inspector needs to understand the principles of operation and limitations of the various methods. Their knowledge of this subject should be such that they can measure and appraise the results of their examinations. Training in the methods and techniques of NDT is only required to create an awareness of NDT methods and their application; it is not required for an Inspector to execute routine NDT activities. For these activities certified NDT technicians shall be used where applicable.

## **B2.7 Mechanical maintenance**

An Inspector shall be aware of the purpose, tasks and roles of the maintenance function. They should have a clear understanding of routine and non-routine activities.

An Inspector shall have sound knowledge and experience in the use of the applicable codes and standards covering design, manufacturing, repair and maintenance with the applicable type of EWP. An Inspector shall understand the fundamental principles within the standards.

It is essential that an Inspector is fully aware of the requirements for the implementation of inspection procedures.

## **B2.8 Inspection options**

An Inspector shall be aware of the various options available to determine "fitness for purpose" of equipment. They must recognise the limitations of the various inspection methods used and take this into account when deciding on the values of the methods and techniques employed (i.e. it may be necessary to supplement the method used with another one to increase confidence).

## **B2.9 Record keeping and report writing**

An Inspector shall prepare and maintain accurate records and reports of all relevant inspections to build up the necessary historic data to maintain the reliability of the equipment and also meet statutory requirements.

**B3 EWP Inspector Type 1**

An EWP Inspector Type 1 is capable of carrying out the six monthly inspections of EWP required in New Zealand.

**B4 EWP Inspector Type 2**

An EWP Inspector Type 2 is capable of carrying out the major inspections of EWP required in New Zealand.

The primary role of the EWP Inspector Type 2 is the preparation and implementation of an Inspection and Test Plan (ITP) and the review of the EWP maintenance in-service and disassembly inspection results.