

# COMPETENT PERSONS FOR INSPECTION AND MAINTENANCE OF PLANT

This guidance note provides information about selecting a competent person—whether in-house or external—to maintain, inspect and test plant<sup>1</sup>.

Maintenance, inspection and testing is required for a wide range of plant including cranes and lifting equipment, installed machinery, lifts, mobile plant, height access equipment, vehicle hoists and pressure equipment.

## **DUTY TO MAINTAIN, INSPECT AND IF NECESSARY TEST PLANT**

Plant must be maintained, inspected and, if necessary, tested by a competent person. This must be done:

- in accordance with the manufacturer’s recommendations, if any, or
- if none—in accordance with the recommendations of a competent person, or
- in relation to inspection, if neither are reasonably practicable—annually.

## **GENERAL PRINCIPLES ON WHO IS A COMPETENT PERSON**

### ***REQUIREMENTS MAY BE DIFFERENT FOR DIFFERENT KINDS OF PLANT***

All relevant factors must be considered in determining whether a person is competent to maintain, inspect or test plant, for example the type of plant and hazards associated with the plant. If there is more than one kind of plant in use at a workplace, then it is possible that a range of competent persons may be required to maintain and inspect the different items.

A person who maintains or inspects plant is not expected to be an expert in every aspect of the plant and engineering. However they should be able to identify the scope of their expertise and advise relevant persons if further expertise is necessary for a particular job to be carried out properly (for example in relation to pressure, hydraulic and pneumatic components requiring specialist attention).

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<sup>1</sup> Excludes plant that relies on manual power for operation and designed to be primarily supported by hand but does apply to explosive power tools designed to be supported by hand.

## **SEPARATING MAINTENANCE AND INSPECTION ACTIVITIES**

It is recommended the competent person inspecting registrable plant is different to the person who usually maintains the plant, so there is less risk of complacency from being over familiar with the plant.

### **REQUIREMENTS FOR REGISTRABLE PLANT**

'Registrable' plant means plant that must be registered for use at a workplace. Examples are amusement devices and registrable mobile cranes and tower cranes.

In general competency requirements for those maintaining, inspecting and testing plant are higher for registrable plant because of the greater complexity of and risks associated with registrable plant. Specific requirements apply in relation to:

—the major inspection of registered mobile cranes and tower cranes: in which case the person carrying out the major inspection must have the skills, qualifications, competence and experience to inspect the plant and must be a professional engineer either registered on the National Professional Engineers Register administered by the Institution of Engineers – Australia, or be a member of the Institution of Engineers - Australia with the status of Chartered Professional Engineer or alternatively the regulator may determine additional competent persons if it considers that exceptional circumstances exist.

—the annual inspection of registrable amusement devices: in which case the person carrying out the annual inspection must have the skills, qualifications, competence and experience to inspect the plant and must be a professional engineer either registered on the National Professional Engineers Register administered by the Institution of Engineers – Australia, or be a member of the Institution of Engineers - Australia with the status of Chartered Professional Engineer or alternatively the regulator may determine additional competent persons if it considers that exceptional circumstances exist.

—the inspection of a registrable amusement device that includes an electrical installation—in which case the person must be qualified, or assisted by a person who is qualified, to inspect electrical installations.

### **MEMBERS OF PROFESSIONAL ASSOCIATIONS**

Being a member of a professional association is not an essential element of being a 'competent person'; but it may be used to help determine a person's qualifications, experience or continuing professional development.

Examples of professional associations include Engineers Australia, Welding Technology Institute of Australia, Australian Institute for the Certification of Inspection Personnel and Australian Institute Engineering Surveyors.

### **COMPLEXITY AND RISKS OF PLANT**

When deciding if a person is competent, the complexity of the plant and the risks associated with the plant should be taken into account when considering the elements listed below.

## HOW CAN I TELL IF SOMEONE IS A COMPETENT PERSON?

The following questions should be considered when deciding if a person has the skills, knowledge and experience to maintain, inspect or test plant at a workplace:	
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>○ Can the person demonstrate understanding of how the particular kind of plant works and common failure modes?</li> <li>○ Does the person have relevant formal trade or academic qualifications? If not can the person establish through other means that they have the required knowledge of, and experience with, plant of the same type and characteristics?</li> </ul>
<b>Industry experience</b>	<ul style="list-style-type: none"> <li>○ Has the person worked in an industry that operates the same or similar plant or equipment and had the opportunity to evaluate the safety features of these plant types?</li> </ul>
<b>Professional activity</b>	<ul style="list-style-type: none"> <li>○ Can the person demonstrate recent professional activity with the type of plant being inspected?</li> <li>○ How long has the person been professionally active?</li> <li>○ Can the person demonstrate that they have maintained their knowledge and skills to ensure they are familiar with new plant safety technology (e.g. recent participation in professional development on plant safety technology)?</li> </ul>
<b>Reputation</b>	<ul style="list-style-type: none"> <li>○ Is the person reputable and able to provide referees who can attest to the quality and nature of their work?</li> </ul>
<b>Communication skills</b>	<ul style="list-style-type: none"> <li>○ Can the person explain what needs to be done on the plant?</li> <li>○ Can the person write reports or maintain log books that are legible and easy to understand?</li> </ul>
<b>Technical expertise</b>	<ul style="list-style-type: none"> <li>○ Can the person describe and demonstrate the safety features of the plant?</li> <li>○ Can the person demonstrate they have relevant knowledge in the operation, safety features and maintenance procedures of the plant?</li> <li>○ Is the person able to review relevant documentation (e.g. operation and maintenance manuals provided with the plant and plant maintenance records) to determine if the plant has been satisfactorily maintained?</li> <li>○ Is the person able to assess information gathered during inspection (including an examination of the plant) to determine if it is safe for continued operation?</li> <li>○ Does the person have the skills to determine where and when to conduct non-destructive testing (NDT) if required and if so, specify (or conduct) the required NDT?</li> </ul>
<b>Understanding of relevant legislation</b>	<ul style="list-style-type: none"> <li>○ Is the person familiar with work health and safety legislation and its requirements (e.g. recent attendance at update programs on legislation)?</li> </ul>
<b>Risk management strategies</b>	<ul style="list-style-type: none"> <li>○ Can the person identify potential hazards associated with the operation of the plant, including commissioning, installation, use, maintenance and disposal?</li> <li>○ Is the person's approach consistent with the principle of ensuring the highest level of safety, following the hierarchy of control?</li> </ul>

<b>Additional questions to be considered for inspection of cranes (other than major inspections), mobile elevating work platforms, vehicle hoists, lifts, concrete placement equipment and pressure equipment.</b>	
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>○ Does the person have a trade qualification in a mechanical associated trade or engineering qualification (e.g. mechanic, fitter, boilermaker, marine engineer etc.)?</li> <li>○ Does the person have an understanding of the relevant plant design, safe use and maintenance standards?</li> </ul>
<b>Industry experience</b>	<ul style="list-style-type: none"> <li>○ How many years' experience in examining and working on the plant (or a very similar type of plant) does the person have? A minimum of two years' experience is recommended.</li> <li>○ Does the person have evidence of the industry experience and currency (e.g. logbooks, references, position profiles)?</li> </ul>
<b>Technical expertise</b>	<ul style="list-style-type: none"> <li>○ Does the person have demonstrated working knowledge of the manufacturer's instructions, as detailed in the manufacturer's specifications and manual for the plant?</li> <li>○ Can the person identify key safety items on the plant and are they able to distinguish between a safety inspection and routine maintenance?</li> <li>○ Does the person understand engineering maintenance concepts (e.g. tolerance, wear allowance and fatigue life)?</li> <li>○ Does the person understand the different types of NDT, including the basic types of NDT, advantages and disadvantages of various NDT types and the applicable standard on the NDT processes?</li> </ul>