

## Plant – Designated plant

12.02.18

## Registration of tower cranes &gt;

The [Workplace Health and Safety Regulations](#), Part 9 – Designated Plant requires that the design of designated plant be verified and registered prior to installation at a workplace. The purpose of this information bulletin is to provide details of the administrative processes for registration of tower cranes, their bases and the erection procedures.

**General**

Tower cranes are classified as designated plant under Schedule 1 of the Workplace Health and Safety Regulations. This means that the crane must be registered with NT WorkSafe and inspected yearly and each time the tower crane is erected on a different site regardless of when the previous inspection was conducted, by a designated plant inspector DPI (registered third party inspector). A full list of inspectors can be found in NT WorkSafe information bulletin [12.02.02](#).

**The 3 processes outlined in the registration process checklist provided in this bulletin must be followed.**

**Design registration of Tower Crane**

Before the crane can be used, the design must be verified and registered with a statutory authority such as NT WorkSafe.

An application to register the design shall include:

- Registration Form [FM044](#) – Application to register a crane design
- the design verification certificate;
- load charts;
- a certificate that all tests have been carried out in accordance with Section 8 of Australian Standard [AS 1418.4](#);
- operating instructions;
- the design registration fee of \$50;

**Design verification**

An independent design verifier shall verify the design. Pursuant to Regulation 88 (2)(a) and (b) of the Workplace Health and Safety Regulations, the design verifier must not have been involved in any part of the design of this plant. If the designer and design verifier are employed by the same person, the design verifier must show that he/she uses a quality system to undertake the design of items of plant and the system has been certified by a body accredited or approved by the [Joint Accreditation System of Australian and New Zealand](#) (commonly known as “JAS-ANZ”).

The following information is required for verification of plant design:

- representational and detailed drawings (including material specifications);
- design calculations, including wind load calculations; and
- diagrams of the control systems.

The design verification certificate shall include a statement that the design complies with [AS 1418.4](#).  
– Cranes, Part 4: Tower cranes.

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## Use of Overseas Design Standards

When applying for Design registration of plant which has been designed using a standard other than the applicable Australian Standard listed in Schedule 10 of the Northern Territory the Workplace Health and Safety Regulations, the design verifier must include a written statement that the item of plant produced using this standard has been assessed against the relevant Australian Standard and the design will produce an item of plant that provides at least an equivalent level of safety as would the Australian Standard.

## Relevant documents and information

The supplier of tower cranes is required to provide the prospective owner with a copy of the design registration letter for the crane and any other information that refers to the:

- commissioning;
- safe operation; and
- routine servicing, inspection and maintenance of the crane.

## Plant registration

The application to register the crane shall include:

- a copy of the design registration letter; and
- the plant registration fee of \$20.

All information must be written in English.

## Crane base and installation of tower cranes

For the procedures to be undertaken prior to the erection of tower cranes please refer to NT WorkSafe information bulletin [12.02.07](#).

## TOWER CRANES Registration process checklist

### TOWER CRANE – No Northern Territory Design Number. (If there is a NT Design, proceed to the next step)

STEP	PROCESS	RESPONSIBILITY	
		External	Internal
1	Application to Register Crane Design <ul style="list-style-type: none"> <li>• Use registration form <a href="#">FM044</a> – Application to register a crane design</li> <li>• Copy of Crane Operator's instruction manual</li> <li>• Copy of Interstate Design Registration letter (if applicable)</li> <li>• Load Charts</li> <li>• Certificate that all tests have been carried out in accordance with Section 8 of the Australian Standards AS 1418.4</li> <li>• Design Verification Certificate</li> <li>• \$50.00 application fee</li> </ul>	<input type="checkbox"/> To be submitted by the site owner. FM044 to be completed by the crane owner, consulting engineer and design verifier.  Verification of design to be carried out by a competent person who <b>has not</b> been involved in the design process	<input type="checkbox"/> Check all documents have been supplied and process the design registration.
2	Documents produced: <ul style="list-style-type: none"> <li>• Certificate of Design Registration.</li> </ul> This make and model tower crane is now design registered with NT WorkSafe	<input type="checkbox"/> Crane owner to register the Tower Crane in the NT. Proceed to next step.	<input type="checkbox"/> Certificate of Design Registration to owner

## TOWER CRANE (New to the Northern Territory)

STEP	PROCESS	RESPONSIBILITY	
		External	Internal
1	Application to Register Plant. <ul style="list-style-type: none"> <li>• Use registration form <a href="#">FM020</a></li> <li>- Application to register designated plant</li> <li>• Copy of Design Registration letter</li> <li>• \$20.00 application fee</li> </ul>	<input type="checkbox"/> To be submitted by the crane owner.	<input type="checkbox"/> File all documents on the workplace file.
2	Documents produced: <ul style="list-style-type: none"> <li>• Certificate of Registration.</li> <li>• Record of Plant Inspection – blank document supplied by NT WorkSafe to be completed by the designated plant inspector (DPI). See instructions in DPI panel on next page.</li> </ul>	<input type="checkbox"/> Crane owner to contact designated plant inspector (DPI) to process Record of Plant Inspection. For a list of DPIs see information bulletin <a href="#">12.02.02</a> - Designated plant inspectors.	<input type="checkbox"/> Register owner and location of the tower crane.  Plant item number is automatically generated. (Description and type by “desap” number.  <input type="checkbox"/> Produce Certificate of Registration.  <input type="checkbox"/> Supply blank Record of Plant Inspection.
3	The crane is now registered with NT WorkSafe.	<input type="checkbox"/> It is the responsibility of the owner to ensure that the plant is inspected and has a current Record <b>before</b> it is used. See instructions in DPI panel on next page.	<input type="checkbox"/> Registration documents to be sent to crane owner.

## DESIGN OF CRANE BASE – Australian Standard [AS 1418.4](#)

STEP	PROCESS	RESPONSIBILITY	
		External	Internal
1	Crane base preparations.	<input type="checkbox"/> The design of the crane base should be carried out by a competent person (recognised by the Institute of Engineers Australia).	
2	Crane base summary. <ul style="list-style-type: none"> <li>• Use registration form <a href="#">FM114</a> – Application to register a tower crane base</li> <li>• Verification of design</li> <li>• Two sets of drawings</li> <li>• Installation, erection, securing &amp; dismantling procedures, including procedures in the event of a cyclone watch or cyclone warning</li> <li>• \$50.00 design registration fee</li> </ul>	<input type="checkbox"/> Crane base summary to be submitted by the crane owner.  FM114 to be completed by the crane owner, consulting engineer and design verifier.  Verification of design to be carried out by a competent person who <b>has not</b> been involved in the design process and is to include: <ul style="list-style-type: none"> <li>• windloads</li> <li>• starter leg welds – test certificate</li> <li>• soilbearing certificate</li> <li>• reinforcement of concrete</li> </ul>	<input type="checkbox"/> Check all documents have been supplied and process the registration.
3	Documents produced: <ul style="list-style-type: none"> <li>• Design Registration Letter for the crane base.</li> </ul> The crane base design is now registered with NT WorkSafe.	<input type="checkbox"/> Crane owner to forward one set of stamped drawings to Designated Plant Inspector.	<input type="checkbox"/> One set of drawings to be stamped and returned to the applicant together with the Design Registration Letter.

## Designated Plant Inspector (DPI) – Crane Inspector

STEP	PROCESS	RESPONSIBILITY	
		External	Internal
1	Site preparations.	<input type="checkbox"/> Site preparations should be supervised by the consulting engineer.	
2	Crane owner to supply stamped drawings to DPI who will check: <ul style="list-style-type: none"> <li>the location of the crane base</li> <li>width and depth of the excavation</li> <li>reinforcement bars – size/spacing</li> <li>starter legs and base plate</li> <li>concrete strength</li> </ul>	<input type="checkbox"/> All processes to comply Australian Standard <a href="#">AS 2550.4</a> Crane hoist and winches – Safe use.  Pre-erection – inspection & testing Crane inspection procedures Post- erection – inspection & testing Results and Assessment	
3	Concrete base: <ul style="list-style-type: none"> <li>DPI to witness concrete pour</li> </ul>		
4	Erection of tower crane: <ul style="list-style-type: none"> <li>by licensed riggers</li> </ul>		
5	After erection DPI to check: <ul style="list-style-type: none"> <li>erection follows manufacturer's recommendations</li> <li>procedures for cramage</li> <li>erection assessories</li> </ul>		
6	Document produced: <ul style="list-style-type: none"> <li>Plant Inspection Report.</li> </ul>	<input type="checkbox"/> Plant Inspection Report is produced by Designated Plant Inspector. One copy of Report to the crane owner and one copy to be held by the Inspector.	<input type="checkbox"/> In case of non-conformity identified by DPI, or any missing documents eg Record of Plant Inspection, the crane will remain <b>out of service</b> and the DPI will consult with NT WorkSafe.
7	Document produced: <ul style="list-style-type: none"> <li>Plant Inspection Report.</li> </ul>	<input type="checkbox"/> If Plant Inspection Report is acceptable to DPI, then Record of Plant Inspection is endorsed and issued to crane owner by DPI.	<input type="checkbox"/> DPIs report monthly to NT WorkSafe.
8	Record of Plant Inspection to be kept with the designated plant and be readily available to DPI or NT WorkSafe Officer upon request.		

## NT WorkSafe >

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