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**CONSTRUCTION HEALTH AND SAFETY,  
AND INJURY PREVENTION**  
**Prevent hazards when working with  
cranes, lifting appliances and rigging on  
construction sites**

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<b>level:</b>	<b>4</b>
<b>credit:</b>	<b>4</b>
<b>planned review date:</b>	December 2003
<b>sub-field:</b>	Construction
<b>purpose:</b>	<p>People credited with this unit standard are able to: identify different types of rigging and lifting work for building and construction sites, and apply the appropriate controls for compliance with the Site Safety Plan, Health and Safety in Employment Act 1992 (HSE) and relevant legislation; and identify and apply procedures to monitor controls of working with cranes and lifting hazards.</p> <p>This unit standard is for people who wish to act as Safety Supervisors or become involved in health and safety and injury prevention over a wide range of building and construction activities and environments.</p>
<b>entry information:</b>	Open.
<b>accreditation option:</b>	Evaluation of documentation and visit by NZQA and industry.
<b>moderation option:</b>	A centrally established national moderation system has been set up by the Building and Construction Industry Training Organisation.

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**special notes:**

- 1 *Compliance* is required with the hierarchy of controls outlined in the Health and Safety in Employment Act 1992 (HSE), i.e: elimination of significant hazards; isolation of significant hazards when elimination is not practicable; and minimisation of significant hazards where elimination and isolation are not practicable.
- 2 *All practical steps* means all steps to achieve the result that it is reasonably practicable to take in the circumstances, having due regard to: nature and severity of the harm; current state of knowledge about that harm; current state of knowledge about the means available to achieve the result and availability and cost of each of those means.
- 3 *Hazards* refer to those occurrences, processes, substances or situations as determined by the supervisor that are an actual or potential cause or source of harm associated with, but not limited to: process, activities, environment, equipment, materials, work organisation, site and facilities. Contributing factors may include noise, vibration, temperature, pressure and mechanical, ergonomic stressors, and chemical agents.
- 4 *Codes of Practice* refer to any issued code of practice approved by the Minister of Labour under Section 20 of the Health and Safety in Employment Act 1992 (HSE), and any work carried out in accordance with that code.
- 5 *Standards* refer to any New Zealand or other Standards that provide technical guidance and specifications. Standards may also be specified in Regulations.

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- 6 *Guidelines* refer to any information on health and safety produced by the Occupation Safety and Health Service of the Department of Labour or Accident Compensation Corporation for the provision of health, safety and injury prevention in the building and construction industry. The guidelines are referenced to Regulations, situations or hazards, and may be based on relevant sections of the Health and Safety in Employment Act 1992, Health and Safety in Employment Regulations 1995, Standards contained in former legislation, or accepted good practice and supportive information.  
Specific publication – Guidelines for the Provision of Facilities and General Safety in the Construction Industry, issued by the Occupational Safety and Health Service of the Department of Labour, April 1996.
- 7 *Legislation* relevant to this unit standard includes, but is not limited to: the Health and Safety in Employment Act 1992 (HSE) and Health and Safety in Employment Regulations 1995, specifically, the definitions referring to Construction Work and Notifiable Work; Human Rights Act 1993; Privacy Act 1993; Local Government Act 1974; Resource Management Act 1991; Building Act 1991.
- 8 *Safety Supervisor* is defined as a person recognised as a health and safety practitioner pertaining to the building and construction industry or trades.
- 9 *Organisation* may refer to any business engaging, controlling, or employing people in a building and construction environment.

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### Prevent hazards when working with cranes, lifting appliances and rigging on construction sites

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- 10 *Site Safety Plan* is defined as a building and construction site specific document that demonstrates an organisation's means of compliance with the Health and Safety in Employment Act 1992, and includes but is not limited to the following:
- assignment of responsibilities for on site implementation;
  - hazard identification methods;
  - accident investigation and report methods;
  - site emergency procedures;
  - site communication strategy;
  - strategy for the co-ordination of on site trade activities;
  - site audit procedures.
- 11 *Lifting appliances* are any machines other than a crane used to raise or lower a load, such as draglines, pile drivers, drilling rigs, excavators, back-hoe diggers, front-end loaders but does not include a conveyor or, excavator or an excavator handling soil, aggregate, mineral or like substance.
- 12 *Crane* is any appliance equipped with mechanical, hydraulic, pneumatic or electrical means for raising and lowering a load by ropes or chains and for transporting the load while suspended. It includes chains, ropes, slings shackles, swivels, rings, hooks or other tackle used in operation of a crane but does not include: hoist block running on a fixed rail or wire, stacker or conveyer whereby a load is moved by means of a belt or platform, and earthmoving or mineral moving or excavating appliance, not fitted with a grab.

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- 13 This unit standard requires assessment in a practical work situation, on site. *On site* refers to a wide range of building and construction environments within which trade skills are required.

## **Elements and Performance Criteria**

### **element 1**

Identify different types of rigging and lifting work for building and construction sites, and apply the appropriate controls for compliance with the Site Safety Plan, Health and Safety in Employment Act 1992 (HSE) and relevant legislation.

Range: type of machine required, weight, size and type of loads and duty cycle the machine will have to lift or perform; maximum radius and height that will be required of the machine; the selection of slings and ropes for lifting purposes.

### **performance criteria**

- 1.1 Hazards are identified in terms of each type of rigging and lifting work to identify the controls required for health and safety compliance.

Range: hazard factors include but are not limited to - bearing capacity of ground and site conditions, proximity of underground and overhead services, access and egress restrictions, load limitations, load lifting, multi-lifting, suspended loads, uncontrolled loads, snagged or stuck loads, wind conditions, communication procedures, anchorage of lifting device, condition of equipment, erection, climbing and dismantling procedures, operating experience of worker, visibility of ground crew, identifiable signallers and hand signals, safety factor of slings and ropes, accepted standards for lifting gear.

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- 1.2 Controls required when carrying out rigging and lifting work are applied to ensure that all practical steps are taken to maintain health and safety compliance.

Range: areas to be considered but not limited to - prior planning, certification and competency of operators, consistent equipment condition checks, selected equipment fit for purpose, discarding of faulty equipment, safe load indicators, adherence to engineering designs and manufacturer's instructions, recommended safe working load (SWL), adherence to machine and load limitations, adequate operational supervision, dedicated communication channels or direct line of sight, correct hand signals, duties of ground crew, safety of persons, effective barriers and warnings, danger to others, protection methods and maintenance methods, emergency procedures which include load dumping.

**element 2**

Identify and apply procedures to monitor controls of rigging and lifting hazards.

**performance criteria**

- 2.1 Identified hazards and related control measures are documented in accordance with the Site Safety Plan and where relevant the Register of all on site lifting equipment.
- 2.2 Rigging and lifting work is inspected for compliance against Site Safety Plan, relevant legislation and the Health and Safety in Employment Act 1992 (HSE).
- Range: may include compliance with documents such as the Crane Rating Chart, the Safe Working Load of machines, rigging and gear (SWL), the established weight of load prior to lift. Inspections must occur prior to a lift.
- 2.3 Corrective action is taken to meet provisions of controls required for compliance with health and safety legislation and the Site Safety Plan.
- 2.4 Results of all inspections are recorded in accordance with the requirements of the Site Safety Plan.

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**Comments on this unit standard**

Please contact the Building and Construction Industry Training Organisation [bcitocs@xtra.co.nz](mailto:bcitocs@xtra.co.nz) if you wish to suggest changes to the content of this unit standard.

**Please Note**

Providers must be accredited by the Qualifications Authority or a delegated inter-institutional body before they can register credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for providers wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

This unit standard is covered by AMAP 0048 which can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.