

## Alberta Small Employer OHS Legislated Requirements

**Industry Code: 42109**  
**Heavy Machine/Equip – Install/Service**

**This document is a guideline only.** Employers have a responsibility of assessing all applicable occupational health and safety legislation, for the tasks they are performing.

This classification describes the sale and/or installation and service or repair of a wide range of heavy and large industrial machinery and equipment.

Task description	Type of equipment used and workers employed
<p>Tall microwave radio-TV towers are installed by raising sections using a gin pole winch and fastening each section. Smaller towers are assembled and tipped upright into place using, typically, a crane or a cat with a winch.</p> <p>Proper alignment of this equipment is critical to ensure optimum performance. Traditionally, alignment was done with handtools and measuring devices. Alignment is now done by laser, and this industry includes laser alignment of the equipment during installation and on service calls.</p>	<p>Examples of the type of machinery or equipment installed, aligned, dismantled or moved include sawmill and pulpmill equipment, mining machinery (conveyor systems), stationary turbines and boilers, material handling equipment, communication towers, pumps, fans, etc. Heavy steel platforms, stairs and catwalks are often installed to allow access on and around the equipment or system.</p>
<p>Often, the equipment or machinery may be brought in from out of province. Components are typically pre-assembled prior to delivery at the job site. Final assembly and installation however, can require weeks or months to complete.</p> <p>In this industry, several companies may be involved in one project: one company could install a turbine; another company may install steel drums, condensers, piping, fans and duct work; in completing the installation project, another company may install conveyors.</p> <p>Employers in this industry are also recognized for occasionally performing shutdown maintenance and retrofits on the equipment and systems described.</p> <p>Construction millwrights and industrial mechanics install, maintain, troubleshoot and repair stationary industrial machinery and equipment.</p>	<p>Businesses may utilize cranes, gin poles, winches, welders, hoists, scaffolding, hand and power tools, and may employ welders, pipefitters, iron workers, boiler makers, millwrights, equipment operators, laborers, sales/estimators, and office/administrative staff.</p> <p>Millwrights are a common trade in this industry. Construction millwrights are employed by millwrighting contractors.</p> <p>Industrial mechanics are employed in manufacturing plants, utilities and other industrial environments.</p>

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Relevant sections of OHS Legislation:

### Occupational Health and Safety Act

**Section 3,4,5** Obligations of employers, workers, etc.

- 10 Prime contractor
- 13 Multiple obligations
- 40 Serious injuries and accidents
- 53 Investigation of injuries and incident
- 31 Existence of imminent danger
- 37 Discriminatory action complaint
- 16-17 Joint Work Site Health and Safety Committees and Health and Safety Rep.

### Occupational Health and Safety Regulation

- Section**
- 7 Availability of specifications
  - 12 Equipment
  - 13 General protection of workers
  - 14 Duties of workers
  - 15 Safety training

### Occupational Health and Safety Code (2009)

#### Part 1 Section

Definitions and General Application	2.2	Designated person to prepare plan
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#### Part 2 Section

Hazard Assessment, Elimination and Control	7	Hazard assessment
	8	Worker participation
	9	Hazard elimination and control

#### Part 3 Section

Specifications and Certifications	12	Following specifications
	13	Manufacturer's and Professional Engineer's specifications
	14	Certification by a professional engineer
	15	Approved equipment

#### Part 5 Section

Confined Spaces	45	Hazard assessment
	46	Training
	48	Safety and protection - generally
	50	Unauthorized entry
	51	Traffic hazards
	55	Emergency response
	56	Tending worker
	57	Entry and exit

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<b>Part 6</b>	<b>Section</b>	
Cranes, Hoists and Lifting Equipment	59	Application
	60	Not commercially manufactured
	61	Identification of components
	62	Rated load capacity
	63	Load charts
	64	Operator requirements
	65	Log books
	66	Preventing an unsafe lift
	67	Preventing collisions
	68	Load weight
	68.1	Lift calculation
	69	Loads over work areas
	70	Tag and hoisting lines
	71	Hand signals
	72	Controls
	73	Repairs and modifications
	74	Containers for hoisting
	75.1	Suspended personnel baskets
	88	Safety codes for mobile cranes
	88.1	Personnel baskets
	89	Non-destructive testing
	90	Counterweights and outriggers
	91	Warning device
92	Preventing damage	
92.1	Load blocks	
92.2	Outriggers	

<b>Part 7</b>	<b>Section</b>	
Emergency	115	Emergency response plan
Preparedness and Response	116	Contents of plan
	117	Rescue and evacuation workers
	118	Equipment

<b>Part 8</b>	<b>Section</b>	
Entrances, Walkways, Stairways and Ladders	119	Safe Entry and Exit

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<b>Part 9</b>	<b>Section</b>	
Fall Protection	139	General protection
	140	Fall protection plan
	141	Instruction of workers
	142	Full body harness
	143	Connectors, carabiners and snap hooks
	144	Fall arrestors
	150	Equipment compatibility
	150.1	Inspection and maintenance
	150.2	Removal from service
	151	Clearance, maximum arresting force and swing
	152	Anchor strength – permanent
	152.1	Anchor strength – temporary
	152.2	Duty to use anchors
	152.3	Independence of anchors

<b>Part 11</b>	<b>Section</b>	
First Aid	178	Providing services, supplies, equipment
	179	Location of first aid
	180	Emergency transportation
	181	First aid providers
	182	Duty to report injury or illness
	183	Record of injury or illness
	184	First aid record access
	<b>Refer to Schedule 2</b>	

<b>Part 12</b>	<b>Section</b>	
General Safety	185	Housekeeping
Precautions	186	Lighting
	189	Securing equipment and materials
	191	Signallers
	194	Vehicle traffic control

<b>Part 14</b>	<b>Section</b>	
Lifting and Handling	208	Equipment
Loads	209	Adapting to heavy or awkward loads
	210	Assessing manual handling hazards

<b>Part 15</b>	<b>Section</b>	
Managing the Control of Hazardous Energy	212	Isolation
	213	Verifying isolation
	214	Securing by individual workers
	215.3	Returning to operation

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<b>Part 17</b>	<b>Section</b>	
Overhead Power Lines	225	Safe limit of approach distances
	226	Transport loads, equipment and buildings
	<b>Refer to schedule 4</b>	

<b>Part 18</b>	<b>Section</b>	
Personal Protective Equipment	228	Duty to use personal protective equipment
	229	Eye protection (compliance with standards)
	233	Footwear
	234	Head protection
	242	Limb and body protection

<b>Part 19</b>	<b>Section</b>	
Powered Mobile Equipment	256	Operator Responsibilities
	257	Visual inspection
	258	Dangerous movement
	260	Inspection and maintenance
	261	Maintenance on elevated parts
	262	Starting engines
	263	Unattended equipment
	264	Lights
	265	Windows and windshields
	266	Other safety equipment
	274	Fuel tank in cab
	279	Refuelling
	290.1	Licensing and mechanical inspection (personal vehicle for work purposes)

<b>Part 21</b>	<b>Section</b>	
Rigging	292	Breaking strength
	292.1	Safety factors
	293	Load ratings
	294	Inspection
	295	Prohibition
	296	Rigging protection
	297	Standards
	298	Slings
	299	Rope wound on drum
	300	Cable clips
	301	Ferrules
	302	Matching components
	303	Safety latches
	304	Makeshift rigging and welding
	305	Synthetic fibre slings

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	306	Wire rope
	307	Metal mesh slings
	308	Electric arc damage
	309	Damaged hooks

<b>Part 24</b>	<b>Section</b>	
Toilets and Washing Facilities	354	Restrictions by employer
	355	Drinking fluids
	356	Exception (temp. site)
	357	Toilet facilities

<b>Part 25</b>	<b>Section</b>	
Tools, Equipment and Machinery	362	Contact by clothing, etc.
	365	Starting Machinery

<b>Part 27</b>	<b>Section</b>	
Violence and Harassment	389	Hazard assessment
	390	Violence prevention plan
	390.4	Harassment prevention plan
	391	Training of workers
	391.1	Investigation and reporting of incidents

<b>Part 28</b>	<b>Section</b>	
Working Alone	393	Application
	394	Precautions required (communication)

<b>Part 29</b>	<b>Section</b>	
Workplace Hazardous Materials Information System (WHMIS)	397	Training
	398	Label required
	400	Decanted products
	404	Safety Data Sheet - Supplier
	406	Information current (SDS)
	407	Availability of Safety Data Sheet