Part	OHS Code	Intent	P	C	Risk	Guideline Statement
Part 10 Fire and Explosion Hazards		Employers must ensure that flammable and combustible substances at the workplace have appropriate controls in place to ensure that workers are not harmed or equipment is not damaged.				
Flammable or explosive atmospheres a hazard	**161.1** Flammable or explosive atmospheres are considered a hazard for the purposes of Part 2.	Flammable and explosive atmospheres can be hazardous to workers and facilities if precautions are not taken.	L	L	L	Flammable or explosive atmospheres are considered a hazard
General Protection and Prevention Prohibitions	**162(1)** A person must not enter or work at a work area if more than 20 percent of the lower explosive limit of a flammable or explosive substance is present in the atmosphere. **162(2)** Subsection (1) does not apply to a competent, properly equipped worker who is responding in an emergency. **162(3)** A person must not smoke in a work area where a flammable substance is stored, handled, processed or used. **162(3.1)** A person must not use an open flame, except in accordance with section 169, in a work area where a flammable substance is stored, handled, processed or used. **162(4)** A person must not mix, clean or use a flammable or combustible liquid at a temperature at or above its flash point in an open vessel if a potential source of ignition is in the immediate vicinity of the activity. **162(5)** A person must not use a flammable or combustible liquid at a temperature above its flash point in a washing or cleaning operation, unless the washing or cleaning equipment is specifically designed and manufactured for the use of the liquid. **162(6)** A person must not store contaminated rags used to clean or	When working with flammable and combustible substances in the workplace appropriate controls and protocols are needed to ensure workers are not harmed and equipment is not damaged.	H	H	H	A person must not enter or work in areas where the air might explode from high levels of flammable or explosive substances; except for a competent person equipped to respond to an emergency situation. A person must not smoke or use an open flame, except in accordance with section 169, in a work area where a flammable substance is stored, handled, processed or used. Flammable or combustible liquids must not be used at a temperature at or above its flash point if a potential source of ignition is in the immediate area of the activity. **F**lammable and combustible liquids must not be used at temperatures above their flash point in washing or cleaning equipment unless specifically designed and manufactured for

	wipe up flammable substances other than in a covered container that has a label that clearly indicates it is to be used for the storage of contaminated rags.					the use of the liquid. Contaminated rags used to clean or wipe up flammable substances must be stored in a covered container and clearly label.
Classification of work sites	**162.1(1)** If the hazard assessment required by Part 2 determines that a work area is a hazardous location, an employer must ensure that (a) a professional engineer, or a competent person authorized by a professional engineer, divides and classifies the work area in accordance with section 18 of the *Canadian Electrical Code*, (b) for any work area falling under the *Code for Electrical Installations at Oil and Gas Facilities*, the area is divided and classified in accordance with rules 19-102 to 19-108 of that Code, (c) for any work area consisting of facilities described in section 20 of the *Canadian Electrical Code*, the area is divided and classified in accordance with section 20 of the *Canadian Electrical Code*, and (d) adequate documentation is prepared and maintained by a competent person, outlining the boundaries of the classified area and any specific measures to be taken to prevent the unintentional ignition of an explosive atmosphere. **162.1(2)** If the hazard assessment required by Part 2 indicates that the basis of an area classification under subsection (1) has changed, an employer must review and update that classification.	Where there are known hazards in a work location it is important for all workers to understand and follow protocols and standards that apply to the type of hazards that may cause worker injury or damage to facilities.	L	H	H	To safeguard both workers and facilities, a competent person must assess whether a worksite is a hazardous location. If it is a hazardous location, then the appropriate protocols must be documented and in place before workers enter the location and work begins.
Procedures and precautions	**163(1) Repealed** **163(2)** If the hazard assessment required by Part 2 determines that a work area is not a hazardous location, an employer must ensure	Flammable substances need to be stored and used properly to reduce the risk of explosion in the worksite.	L	H	H	Flammable substance must be stored in proper containers with appropriate ventilation in the storage and work

	that flammable substances stored or used at the work area, (a) will not be in sufficient quantity to produce an explosive atmosphere if inadvertently released, (b) are not stored within 30 metres of an underground shaft, (c) are not stored in the immediate vicinity of the air intake of (i) a ventilation supply system, (ii) an internal combustion engine, or (iii) the fire box of a fired heater or furnace, and (d) are stored only in containers approved to (i) CSA Standard B376-M1980 (R2008), *Portable Containers for Gasoline and Other Petroleum Fuels*, (ii) NFPA Standard 30, *Flammable and Combustible Liquids Code*, 2008 Edition, or (iii) ULC Standard C30-1995, *Containers, Safety*, if manufactured on or after July1, 2009. **163(2.1)** If the work requires that the contents of metallic or conductive containers be transferred from one container to another, an employer must ensure that static electricity is controlled while the contents are being transferred. **163(3) Moved to section 165(3).**					areas as well as way from air intakes of ventilation systems, internal combustion engines or heating systems to prevent accidental explosions.
Contaminated clothing and skin	**164(1)** If a worker's clothing is contaminated with a flammable or combustible liquid, the worker must (a) avoid any activity where a spark or open flame may be created or exists, (b) remove the clothing at the earliest possible time in a manner consistent with clause (a), and (c) ensure that the clothing is decontaminated before it is used again. **164(2)** If a worker's skin is contaminated with a flammable or combustible liquid, the worker must	Flammable or combustible liquids on a workers clothing or body can create a workplace danger to the worker.	M	H	H	Workers must remove as soon as reasonably practicable any clothing contaminated with flammable or combustible liquids and avoid sparks or open flames. If skin is contaminated, the worker must wash as soon as possible.

	wash the skin at the earliest possible time.					
Protective procedures and precautions in hazardous locations	**165(1) Repealed** **165(2) Repealed** **165(3)** An employer must ensure that in a hazardous location, (a) equipment used will not ignite a flammable substance, and (b) static electricity is controlled, (i) in the case of conductive containers for flammable or combustible liquids while the contents are being transferred, by electrically bonding the containers to one another and electrically grounding them, and (ii) in other cases, by some other effective means. **165(4)** An employer must ensure that, if a work area is determined to be a hazardous location, the boundaries of the hazardous location are (a) clearly identified to warn workers of the nature of the hazards associated with the presence of the flammable substance in that work area, or (b) fenced off to prevent workers or equipment from entering the area without authorization. **165(5)** If reasonably practicable, an employer must ensure that procedures and precautionary measures are developed for a hazardous location that will prevent the inadvertent release of (a) a flammable substance, or (b) oxygen gas if it can contact a flammable substance. **165(6)** Despite subsection (5), if it is not reasonably practicable to develop procedures and precautionary measures that will prevent release, an employer must develop procedures and precautionary measures that will prevent an explosive atmosphere	Controlling sparks, flames and static electricity in know hazardous locations as well as controlling access or clearly marking the boundaries of hazardous locations where there is a possibility of explosion can help to prevent injury and damage to facilities.	H	H	H	To reduce the risk of explosion in a hazardous location, equipment used must not ignite flammable substances, static electricity must be controlled, and conductive containers with flammable or combustible materials must be grounded. The hazardous location must be clearly marked or accesses must be controlled. Reasonably practicable measures must be taken to ensure that flammable substances are not released into the atmosphere within the work location and that precautionary measures are taken to prevent ignition of flammable substances.

	from igniting in a hazardous location.					
Internal combustion engines	**166(1)** An employer must ensure that an internal combustion engine in a hazardous location has a combustion air intake and exhaust discharge that are (a) equipped with a flame arresting device, or (b) located outside the hazardous location. **166(2)** An employer must ensure that all the surfaces of an internal combustion engine that are exposed to the atmosphere in a hazardous location are (a) at a temperature lower than the temperature that would ignite a flammable substance present in the hazardous location, or (b) shielded or blanketed in such a way as to prevent any flammable substance present in the hazardous location from contacting the surface. **166(2.1)** If it is not reasonably practicable to comply with subsection (2), an employer must ensure that another effective safeguard is established. **166(3)** Subsections (1) and (2) do not apply to a vehicle that is powered by an internal combustion engine. **166(4)** An employer must ensure that a vehicle powered by an internal combustion engine is not located or operated in a hazardous location except in accordance with section 169. **166(5)** An employer must ensure that an internal combustion engine is not located in a Zone 0 hazardous location as defined in the *Canadian Electrical Code* or in a part of a Division 1 hazardous location that meets the description of a Zone 0 location as defined in the *Canadian Electrical Code*.	Internal combustion engines operated in a hazardous location can potential ignite flammable or combustible materials if not properly used with safe guards.	H	H	H	Internal combustion engines in a hazardous location must have air intake and exhaust discharge equipped with a flame arresting device or be located outside of the hazardous location. The external surface of an internal combustion engine exposed to the atmosphere in a hazardous location must have a temperature lower than the temperature that would ignite a flammable substance that is present or the surface needs to be shielded or blanketed to prevent contact with the flammable substance or if not reasonably practicable another effective safeguard must be in place. Vehicles with internal combustion engines must not be operated in hazardous locations except in accordance with section 169 when performing hot work. Internal combustion engines must not be located in hazardous locations where flammable substances or dust is present or could be present thereby creating a potential for an explosion.

	166(6) An employer must ensure that an internal combustion engine is not located in a Zone 1 or Division 1 hazardous location as defined in the *Canadian Electrical Code* unless it is equipped with combustible gas monitoring equipment in accordance with section 18 of the *Canadian Electrical Code*. **166(7)** An employer must ensure that an internal combustion engine is not located in a Class II, Division 1 or a Class III, Division 1 hazardous location as defined in the *Canadian Electrical Code*.					
Flare stacks, flare pits and flares	**167** An employer must ensure that open flames from flare pits, flare stacks or flares are not less than 25 metres beyond the boundary of a hazardous location.	This would not appear to be applicable to Farming and Ranching				
Industrial furnaces and fired heaters	**168(1)** An employer must ensure that (a) a gas or oil fired furnace is designed, operated, monitored, controlled and maintained in a manner that minimizes the possibility of internal explosion of the fire box, and (b) if the furnace is heating flammable substances, there are no connections between the process medium supply system and the fuel supply system or another system connected to the inside of the fire box of the furnace. **168(2)** An employer must ensure that the heated substance systems referred to in subsection (1)(b) are not isolated using inserted blinds or a double block and bleed system. **168(3)** A worker must not attempt to ignite a furnace manually, or to re-ignite a furnace after shutdown, until (a) explosive concentrations of flammable substances are eliminated from the fire box by purging or	Gas or oil fired furnaces can pose a danger and risk of injury if they are not operated properly.				Gas and oil furnaces must be operated, installed, maintained, inspected regularly and properly to prevent explosions. When heating flammable substances with a gas or oil fired furnace there must be no connections between the heated substance and the fuel supply system. A worker must not attempt to ignite or re-ignite a furnace after shutdown until flammable substances are eliminated from the firebox and proper restart procedures are used. The intake, exhaust and firebox of a furnace or fired heater must not be located in a hazardous location with known flammable substances or high concentrations of

	removed by another effective means, and (b) tests or procedures are completed that ensure an explosive atmosphere is not present within the furnace. **168(4)** An employer must ensure that intakes, exhausts and the fire box of a furnace or fired heater are not located or operated in a Division 1, Zone 0 or Zone 1 hazardous location of any Class as defined in the *Canadian Electrical Code*. **168(5)** An employer must ensure that a furnace or fired heater is not located or operated in a Division 2 or Zone 2 hazardous location of any Class as defined in the *Canadian Electrical Code*, unless (a) the combustion process is totally enclosed except for the combustion air intake and the exhaust discharge, (b) all surfaces exposed to the atmosphere (i) operate below the temperature that would ignite a flammable substance present in the hazardous location, or (ii) are shielded or blanketed in such a way as to prevent a flammable substance in the hazardous location from contacting the surface, and (c) the combustion air intake and exhaust discharge are equipped with a flame arresting device or are located outside the hazardous location. **168(6)** If it is not reasonably practicable to comply with subsection 5(b), an employer must ensure that another effective safeguard is established.					dust as outlined in the Canadian Electrical Code. A furnace or fired heater must not be located or operated in a hazardous location which may on occasion have high levels of flammable substances or dust or be located close to a known location with high concentrations of flammable substances or dust unless the combustion process is totally enclosed except for the air intake and the exhaust discharge. In addition, all surfaces exposed to the atmosphere in a hazardous location must have a temperature lower than the temperature that would ignite a flammable substance that is present or the surface needs to be shielded or blanketed to prevent contact with the flammable substance or if not reasonably practicable another effective safeguard must be in place. The intake and exhaust discharge must be equipped with flame arresting devices or located outside of the hazardous location. Employers must ensure that furnaces and fired heaters installed in a shop, barn or other farm structure adheres to the specifications in the OH&S code and the Canadian Electrical Code

Hot work	**169(1)** Despite any other section in this Part, an employer must ensure that hot work is done in accordance with subsections (2) and (3) if (a) the work area is a hazardous location, or (b) the work area is not normally a hazardous location but an explosive atmosphere may exist for a limited time because (i) a flammable substance is or may be in the atmosphere of the work area, (ii) a flammable substance is or may be stored, handled, processed or used in the location, (iii) the hot work is on or in an installation or item of equipment that contains a flammable substance or its residue, or (iv) the hot work is on a vessel that contains residue that may release a flammable gas or vapour when exposed to heat. **169(2)** An employer must ensure that hot work is not begun until (a) a hot work permit is issued that indicates (i) the nature of the hazard, (ii) the type and frequency of atmospheric testing required, (iii) the safe work procedures and precautionary measures to be taken, and (iv) the protective equipment required, (b) the hot work location is (i) cleared of combustible materials, or (ii) suitably isolated from combustible materials, (c) procedures are implemented to ensure continuous safe performance of the hot work, and (d) testing shows that the atmosphere does not contain (i) a flammable substance, in a mixture with air, in an amount	Using an open flame or equipment and activities that can create sparking in a hazardous location can create significant damage and or injury or loss of life.	H	H	H	An employer must ensure that hot work has not begun until a hazard assessment is completed. If a hazard exists, then an employer must complete a safety plan that indicates the nature of the hazard, the type and frequency of atmospheric testing required, the safe work procedures and precautionary measures to be taken, and the protective equipment required. In addition, the hot work location must be cleared of combustible materials, or suitably isolated from combustible materials, procedures are implemented to ensure continuous safe performance of the hot work, and testing shows that the atmosphere does not contain a flammable substance at a mixture exceeding 20 percent of that substance's lower explosive limit for gas or vapours, or the minimum ignitable concentration for dust. If a potential hazard is identified, testing of the area where hot work is occurring must be repeated at regular intervals appropriate to the hazard associated with the work being performed.

	exceeding 20 percent of that substance's lower explosive limit for gas or vapours, or (ii) the minimum ignitable concentration for dust. **169(3)** An employer must ensure that the tests referred to in subsection (2)(d) are repeated at regular intervals appropriate to the hazard associated with the work being performed.					
Hot taps	**170(1)** An employer must develop procedures in a hot tap plan specific to the type or class of hot tap work being performed before hot tap work begins. **170(2)** The employer must ensure that the plan includes (a) a site hazard analysis, (b) a description of the sequence of events, (c) safety precautions to address the hazards, and (d) an emergency response plan. **170(3)** The employer must ensure that (a) only competent workers are permitted to carry out a hot tap operation, (b) the point in the pressure-containing barrier to be hot tapped is checked and strong enough for the hot tap to be done safely, (c) adequate working space is available at the location of the hot tap, (d) exit routes are available and their locations known by workers involved in the work, (e) workers wear appropriate personal protective equipment when a hot tap is performed on equipment containing hydrocarbons, combustible fluids, superheated steam or any other hazardous material, (f) material being supplied to the equipment being hot tapped can be	This would not appear to be applicable to Farming and Ranching				

	shut off immediately in an emergency, (g) the hot tap machine and fittings are of adequate design and capability for the process, conditions, pressure and temperature, and (h) the pressure in the equipment being hot tapped is as low as practical during the hot tap operation. **170(4)** An employer must ensure, where reasonably practicable, that a hot tap is not undertaken if at the proposed hot tap location (a) the equipment contains a harmful substance, (b) the equipment is in hydrogen service, or (c) the equipment contains an explosive mixture.					
Spray operations	**170.1(1)** An employer must ensure that a spray booth used to apply flammable substances is provided with ventilation in accordance with Part 26 and that the ventilation is (a) adequate to remove flammable vapours, mists, or powders to a safe location, and (b) interlocked with the spraying equipment so that the spraying equipment is made inoperable when the ventilation system is not in operation. **170.1(2)** An employer must ensure that a spray booth will not ignite a flammable substance. **170.1(3)** When spray application of a flammable substance is carried out other than in a spray booth, an employer must ensure that the application is carried out in accordance with the *Alberta Fire Code* (1997), and is (a) carried out at least 6 metres away from anything that might obstruct ventilation, and	This would not appear to be applicable to Farming and Ranching				Limited spray painting can occur in farm shop with welding (but likely this should be covered under other sections).

	(b) effectively isolated from all machinery and equipment that is, or may become, a source of ignition and that is within 2 metres measured vertically above and 6 metres measured in other directions from the place at which the spray painting substance is being applied. **170.1(4)** If it is not reasonably practicable to ensure that the application is carried out as required by subsection (3)(a), an employer must ensure that the work area where the application is carried out is adequately ventilated to remove flammable vapours, mists or powders to a safe location. **170.1(5)** An employer must provide a nozzle guard for use with airless spray machinery. **170.1(6)** The worker operating airless spray machinery must ensure that the nozzle guard of airless spray machinery is in place at all times when the machinery is being operated.					
Compressed and liquefied gas	**171(1)** An employer must ensure that (a) compressed or liquefied gas containers are used, handled, stored and transported in accordance with the manufacturer's specifications, (b) a cylinder of compressed flammable gas is not stored in the same room as a cylinder of compressed oxygen, unless the storage arrangements are in accordance with Part 3 of the *Alberta Fire Code* (1997), (c) compressed or liquefied gas cylinders, piping and fittings are protected from damage during handling, filling, transportation and storage, (d) compressed or liquefied gas cylinders are equipped with a valve	Compressed and liquefied gas containers and cylinders can be dangerous if not handled and maintained properly in accordance with the manufacturer's specifications.	M	H	H	Compressed or liquefied containers or cylinders as well as regulators and associated hoses and devices must be operated, maintained, stored and handled in accordance with the manufacturer's specification. Containers and cylinders and their associated attachments must be protected from damage and heat sources which might cause explosions. When not in use, valves to cylinder must be turned off. Flashback devices must be installed on the torch

	protection cap if manufactured with a means of attachment, and (e) oxygen cylinders or valves, regulators or other fittings of the oxygen using apparatus or oxygen distributing system are kept free of oil and grease. **171(2)** An employer must ensure that a compressed or liquefied gas system is not exposed to heat sources that generate temperatures that may (a) result in the failure or explosion of the contents or the system, or (b) exceed the maximum exposure temperatures specified by the manufacturer. **171(3)** An employer must ensure that a compressed or liquefied gas system is kept clean and free from oil, grease and other contaminants that may (a) cause the system to fail, or (b) burn or explode if they come in contact with the contents of the system. **171(4)** An employer must ensure that on each hose of an oxygen-fuel system, (a) a flashback device is installed at either the torch end or the regulator end, and (b) a back-flow prevention device is installed at the torch end. **171(5)** An employer must ensure that compressed or liquefied gas cylinders are secured, preferably upright, and cannot fall or roll, unless a professional engineer certifies another method that protects against the hazards caused by dislodgment. **171(6)** Despite subsection (5), an employer must ensure that a cylinder containing acetylene is secured and stored upright. **171(7) Moved to section 170.1(5).** **171(8)** A worker must ensure that					end or regulator end and a back flow prevention device installed at the torch end of oxygen fueled cutting equipment.

	(a) compressed gas equipment designed to be used with a specific gas is only used with that gas, (b) the cylinder valve is shut off and pressure in the hose is released when cutting or welding is not in progress, (c) sparks, flames or other sources of ignition are not allowed to come in contact with the cylinders, regulators or hoses of a compressed or liquefied gas system, and (d) compressed air is not used to blow dust or other substances from clothing.					
Welding — general	**171.1(1)** An employer must comply with the requirements of CSA Standard W117.2-06, *Safety in welding, cutting and allied processes.* **171.1(2)** An employer must ensure that welding or allied process equipment is erected, installed, assembled, started, operated, used, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, carried, maintained, repaired and dismantled in accordance with the manufacturer's specifications. **171.1(3)** An employer must ensure that, before a welding or allied process is commenced, the area surrounding the operation is inspected and (a) all combustible, flammable or explosive material, dust, gas or vapour is removed, or (b) alternate methods of rendering the area safe are implemented. **171.1(4)** If a welding or allied process is performed above an area where a worker may be present, an employer must ensure that adequate means are taken to protect a worker below the operation from sparks, debris and other falling hazards. **171.1(5)** An operator of an electric welding machine must not leave the	When using welding equipment it is important to follow the manufacturer's operational specifications to prevent injury and damage to equipment.	M	H	H	Employers must ensure that workers using welding equipment are properly trained in safe use of welding equipment and the hazards involved. When operating welding equipment a competent person must adhere to CSA Standards and manufacturer's operational specifications. Before welding, ensure the area is free of flammable and explosive materials or alternative measures must be implemented to render the area safe. When welding or cutting is performed above areas other workers may be present, adequate protection must be provided to protect the workers below from sparks, debris and other falling hazards. Electric welding machines must not be left unattended when the electrode is in place.

	machine unattended without removing the electrode. **171.1(6)** An employer must ensure that appropriate welding and ground leads are used to fasten the electric supply cable securely.					
Gas welding or allied process	**171.2(1)** An employer must ensure that a regulator and its flexible connecting hose are tested immediately after connection to a gas cylinder to ensure that there is no leak of the gas supply. **171.2(2)** An employer must ensure that if a leak of the gas supply develops during gas welding or an allied process, (a) the supply of gas is immediately shut off by the worker performing the welding or allied process, and (b) the work is not resumed until the leak is repaired.	Regulators and hoses connected to compressed gas cylinder that are leaking gas poise a danger and risk of injury.	L	H	H	Regulators and hoses connected to compressed gas cylinder used for welding must be tested and repaired if leaks are found before welding begins.
Welding Services From Vehicles Storage compartments	**172(1)** An employer must ensure that welding services provided from vehicles comply with CSA Standard W117.2-01, *Safety in welding, cutting and allied processes* with the exception of Clause G.2 (Cabinets) of Annex G. **172(2)** An employer must ensure that gases do not accumulate and reach their lower explosive limit by providing solid-walled storage compartments in which compressed gas cylinders are stored with vents (a) that have a minimum of 0.18 square metres of free area for every 0.42 cubic metres of compartment volume, (b) that have the free area split evenly between the top surface and the bottom surface of the storage compartment, and (c) that are unobstructed under all conditions. **172(3)** An employer must ensure that solid-walled storage compartments in which compressed gas cylinders are stored are built so	Compressed gas cylinders pose a danger and risk of injury if improperly stored and vented in the storage container on a welding service vehicle.	L	M	M	Welding services provided from vehicles must comply with CSA Standards. Ensure compressed gas cylinders are placed in solid-walled storage compartments designed to prevent gas and vapour movement into adjoining compartments and are designed with proper venting to prevent gases from accumulating and potentially exploding. Solid-walled compartments used to store compressed gas cylinders must use non-sparking latching and locking hardware and, if present, electrical components appropriate for use in an explosive atmosphere.

	that gases or vapours cannot flow into adjoining compartments. **172(4)** An employer must ensure that solid-walled compartments in which compressed gas cylinders are stored use (a) latching and locking hardware made of non-sparking materials, and (b) electrical components appropriate for use in an explosive atmosphere, if electrical components are located within the compartment. **172(5)** Subsections (1) to (4) apply whether the compressed gas cylinder is stored vertically, horizontally or at an angle.					
Horizontal cylinder storage	**173(1)** An employer must ensure that a compressed gas cylinder that is horizontal when it is transported or used in a vehicle (a) is in a storage compartment that incorporates a structure of sufficient strength to prevent the cylinder from passing through it should the valve end of the cylinder be damaged and vent its contents in an uncontrolled manner, (b) is in a storage compartment that incorporates a means of securing the cylinder that stops the cylinder from moving within the compartment and that puts the bottom of the cylinder in direct contact with the structure in clause (a), and (c) is protected against scoring during insertion into, and removal from, the storage compartment. **173(2)** An employer must ensure that the regulator on a compressed gas cylinder that is horizontal when it is transported or used in a vehicle is protected from damage by other equipment in the storage compartment. **173(3)** An employer must ensure that a storage compartment on a vehicle from which welding services	Compressed gas cylinders transported on their side need to be properly stored and contained to prevent serious injury should the value, regulator or cylinder become damaged.	L	H	H	A competent person must ensure that horizontally transported compresses gas cylinders are stored in a structure of sufficient design to prevent uncontrolled movement should the valve, regulator or cylinder become damaged. If a specific structure is not practicable, for example when moving a propane tank in the back of a truck, a competent person must ensure it is securely tied to prevent uncontrolled movement and damage.

	are provided is certified by a professional engineer as meeting the requirements of subsections (1) and (2).					
Handling cylinders	**174(1)** A worker must not insert or remove a compressed gas cylinder from a storage compartment by holding the valve or valve protection cap. **174(2)** A worker must put on and secure to the valve outlet the valve protection cap or plug provided by the manufacturer of a compressed gas cylinder if the cylinder is not secured and not connected to dispensing equipment. **174(3)** If a welding service vehicle is not in service for any reason, a worker must (a) close the compressed gas cylinder valves, (b) remove the regulators if they are not integral to the cylinders, and (c) put on and secure the valve protection caps or plugs. **174(4)** A worker must shut off the cylinder valve and release the pressure in the hose if a compressed gas cylinder on a welding service vehicle is not in use or if the vehicle is left unattended.	Compressed gas cylinders pose a danger of explosion if valves are compromised (ie: bent, cracked, broken, etc).	L	H	H	Workers must not lift compressed gas cylinders by holding the valve or protection cap. A compressed gas cylinder must have the manufacturer's protective cap or plug in place if the cylinder is not connected to the dispensing equipment. When a welding service vehicle is not being used the compressed gas cylinder valve must be closed, the regulators removed if not integral to the cylinder, and protection caps or plugs secured.
Isolating Pipes and Pipelines Isolating methods	**175 Moved to section 215.4.**					
Pigging	**176 Moved to section 215.5.**					