

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES LICENSING AND REGULATORY AFFAIRS

BUREAU OF SAFETY AND REGULATION DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY STANDARDS COMMISSION

FILED WITH THE SECRETARY OF STATE ON APRIL 22, 2013

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306.

Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

~~These rules take effect 15 days after filing with the Secretary of State~~

(By authority conferred on the director of the department of **licensing and regulatory affairs** ~~consumer and industry services~~ by sections 16 and 21 of **1974 PA 154, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030** Act No. 154 of the Public Acts of 1974, as amended, and Executive Reorganization Order No. 1996-2, being §§408.1016, 408.1021, and 445.2001 of the Michigan Compiled Laws)

R 408.15712, R 408.15713, R 408.15717, R 408.15721, R 408.15723, R 408.15725, R 408.15726, and R 408.15739 of the Michigan Administrative Code are amended as follows:

PART 57. OIL AND GAS DRILLING AND SERVICING OPERATIONS

R 408.15712. Personal protective equipment and methods.

Rule 5712. (1) The requirements for the providing and use of personal protective equipment are found in general industry safety standard, Part 33. Personal Protective Equipment, being R 408.13301 et seq. of the Michigan Administrative Code.

(2) **An employee shall not wear loose** ~~Loose~~ or poorly fitted clothing ~~shall not be worn~~.

(3) An employee shall not work in clothing that is saturated with any flammable, hazardous, or irritating substance. This clothing shall be immediately removed and replaced with suitable clothing after the affected skin area has been thoroughly washed and treated, if necessary.

(4) While on the worksite, an employee shall not wear jewelry or other adornments which are prone to snagging or hanging and causing injury.

(5) An employee whose length of hair poses a hazard on the worksite shall keep his or her hair contained in a suitable manner while working. Hair and beard styles shall not interfere with the wearing of respiratory protective equipment.

(6) If chemicals harmful to the eyes are being used, appropriate personal protective equipment and eye wash stations shall be provided to the employee, at no expense to the employee, and shall be used.

~~(7) If it is necessary to provide a respirator, it shall be as prescribed by the department of public health rule OH 3502.~~

R 408.15713. Safety belt, lifeline, and lanyard use.

Rule 5713. (1) An employee, when engaged in work 10 feet or more above the rig floor or other working surfaces, shall wear a safety belt or harness with an attached lanyard, except during rig up and rig down.

(2) A safety belt, safety harness and any lifeline and lanyard shall be used only for safeguarding the employee.

(3) A safety belt, safety harness, lifeline, or lanyard subjected to in-service shock loading, rather than static loading, shall be removed from service and shall not be used again for employee protection.

~~(4) The safety belt, safety harness, lifeline, and lanyard shall be provided, constructed, inspected, and maintained as prescribed in general industry safety standard, Part 33. Personal Protective Equipment, being R 408.13301 et seq. of the Michigan Administrative Code.~~

**(4)** ~~(5)~~ When working in the mast or derrick, an employee shall be provided with safety belt or safety harness and a lanyard or lifeline which is adjusted to allow the minimum of drop in case of a fall.

R408.15717. Wells containing hydrogen sulfide.

Rule 5717. (1) Drilling and **servicing** ~~Servicing~~ of wells shall be as prescribed in the American Petroleum institute document, RP49, reissued 1975, Recommended Practices for Safe Drilling of Wells Containing Hydrogen Sulfide. This document is incorporated herein by reference. The API document may be inspected at the **Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143** ~~Lansing office of the department consumer and industry services~~. This information may be purchased at a cost of **\$125.00** ~~\$1.00~~ from **IHS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179 or via the internet at website: <http://global.ihs.com>** ~~American Petroleum Institute, 2101 L. St., N.W., Washington D.C. 20037, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.~~

(2) Where hydrogen sulfide or any other unusually hazardous gas is known or suspected to exist, the employer shall advise the employees of the possible exposure involved and shall provide training and personal protective equipment as required in ~~Rule rule-5711 of~~ ~~on~~-this part.

(3) Where it is not necessary to maintain a cellar on wells producing hydrogen sulfide, the cellar shall be filled to eliminate the hazard of accumulation of hydrogen sulfide gas.

R 408.15721. Construction of derricks and masts.

Rule 5721. (1) A derrick or mast manufactured after November 21, 1979, shall have a permanent nameplate which is attached to the structure and which indicates **all of** the following information:

(a) Name of manufacturer.

(b) Model number and serial number.

(c) Rating, including maximum static hook load capacity with the number of lines.

(d) Whether guying is applicable and the recommended guying pattern. If guying requirements do not appear on the nameplates, the derrick or mast shall be guyed as prescribed by API SPEC 4E-1974, entitled "Specification for Drilling and Well Servicing Structures," which is herein adopted by reference and may be inspected at the **Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143**

~~Lansing office of the department of consumer and industry services.~~ The specifications may be purchased at a cost of **\$125.00** ~~\$1.50~~ from **IHS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179 or via the internet at website: <http://global.ihs.com>** ~~the American Petroleum Institute, 2101 L St. N.W., Washington, D.C. 20037, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.~~

(2) An employee qualified in procedures for raising and lowering the mast shall be in charge of raising and lowering operations and shall do both of the following:

(a) Visually inspect the raising or lowering mechanism.

(b) Assure that all tools and materials which are not secured are removed from the mast.

(3) Only an employee required to carry out the operation shall be allowed in or under the mast unless it is in the fully raised or lowered position.

(4) The mast shall be level and properly positioned before raising, lowering, scoping the structure, or tightening guylines.

(5) Before imposing any load on a derrick or mast, all required load guys shall be properly tightened.

(6) Mast crown sheaves shall be guarded to prevent the hoisting line from being displaced from the grooves during all operations.

(7) A derrick board or other platform shall be constructed, maintained, and adequately secured to the structure to withstand the weight of employees and other stresses placed upon the platform.

(8) An unguarded opening large enough to permit a person to fall through shall not exist between the beams or main supports of the crown block.

(9) If bumperblocks are used under the crown block beam, a safety cable or strap shall be fastened along their full length with both ends secured to the derrick.

(10) All counterweights above the rig floor, when not fully encased or running in permanent guides, shall have a safety chain or wire rope safety line anchored to the derrick or mast to secure them. The chain and wire rope shall be capable of sustaining the drop load and shall limit the drop counterweight to not less than 7 feet from the floor.

(11) Load-bearing hydraulic jacks shall have a safety lock device, double valves, or the equivalent..

(12) A derrick, mast, and auxiliary parts shall be maintained in a safe condition.

R 408.15723. Traveling blocks and crown blocks.

Rule 5723. (1) A traveling block and its component parts shall be designed, constructed, and maintained as prescribed in API SPEC 8A-1976, entitled "Specifications for Drilling and Production Hoisting Equipment," which is adopted herein by reference and may be inspected at the **Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143**

~~Lansing office of the department of consumer and industry services.~~ The specifications may be purchased at a cost of **\$125.00** ~~\$1.50~~ from **IHS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179 or via the internet at website: <http://global.ihs.com>** ~~American Petroleum Institute, 2101 L St., N.W., Washington, D.C. 20037, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.~~

(2) A traveling block, crown block, or related equipment shall not be subjected to any load in excess of its designed rating.

(3) A hook for use with a traveling block to which equipment is either directly or indirectly attached shall be equipped with safety latch to prevent accidental release of the load.

(4) A traveling block exposed to contact shall be guarded at the running nip point of the sheave and shall not be operated unless the guard is in place.

R 408.15725. Electrical installations.

Rule 5725. (1) Except as required in this rule, electrical installations and equipment shall be as prescribed in the national electrical code, NFPA 70-1981, which is adopted herein by reference and may be inspected at the **Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143** ~~Lansing office of the department of consumer and industry services~~. This code may be purchased at the cost of ~~\$41.50~~ **\$27.00** from the National Fire Protection Association, Batterymarch Park, **P.O. Box 9101, Quincy, Massachusetts 02269-9101**, or via the internet at web-site: [www.nfpa.org](http://www.nfpa.org) or from the ~~Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909~~. Electrical equipment such as lighting, power tools, and other electrical motors used in hazardous locations shall be designed for such locations and where practicable, listed by a nationally recognized testing laboratory. All wiring components and electrical equipment shall be maintained in accordance with the original design. Because of exposure to vibration and frequent rig moves, maximum use shall be made of flexible electrical cord intended for hard usage and with inherent resistance to dampness and petroleum products.

(3) On a land location, an engine-driven light plant or generator shall not be located closer to the wellbore than the nearest engine operating the rig.

(4) A light plant generator shall have a overload safety device to provide protection from arcing in a hazardous area or from a burnout of the generator.

(5) Rig lighting equipment, except that used in a cellar, shall be classified as class 1, division 2.

(6) Cellar lighting equipment shall be classified class 1, division 1.

(7) The following area classifications shall determine the type of maintenance requirements for electrical equipment on the rig under normal operating conditions. When special service operations are being performed, the requirements for electrical installations under the conditions of service listed in subdivisions (a) to (h) of this subrule shall be followed:

(a) When the derrick or mast is not enclosed or is equipped with a windbreak (open top and V-door) and the substructure is open to ventilation, the areas shall be classified as shown in figure 1 and shall provide not less than 12 complete air changes per hour.

(b) If the rig floor and substructure are enclosed and as such, provide not less than 12 complete air changes per hour, the areas shall be classified as shown in figure 2.

(c) Where appropriate, the area surrounding a drilling fluid tank located outdoors shall be provided with ventilation of not less than 12 complete air changes per hour and shall be classified as shown in figure 3.

(d) If the drilling fluid tank is enclosed or located so as to provide not less than 12 complete air changes per hour, the areas shall be classified as shown in figure 4.

(e) The areas surrounding a shale shaker with ventilation of not less than 12 complete air changes per hour shall be classified as shown in figure 5.

(f) When the shale shaker is enclosed, the area within the enclosure shall be classified as class 1, division 1.

(g) If an open fluid ditch or trench is used to connect between drilling fluid tanks, or between the drilling fluid tank and shale shaker, or open drilling fluid pits, and if ventilation of not less than 12 complete air changes per hour is provided the areas shall be classified as shown in figure 3 for tanks.

(h) The area surrounding the drilling fluid pump shall not be considered hazardous unless it is so classified due to the proximity of another hazardous component or facility.

(8) Motors and other electrical equipment shall be classified as prescribed in figures 1 to 5 of this rule.

(9) Direct current (DC) rotary, draw works, cathead, and pump motors in a classified area shall have an enclosed cooling system or shall be purged with air from a safe source. Air units supplying purged air shall be located at the input end of the system to provide positive pressure on the ducting and motors.

(10) All electrical extension cords shall be properly insulated with both male and female plugs, and the cord shall be in good condition.

(11) Lamps and reflectors shall be kept clean to provide illumination.

(12) Figures 1 to 5 read as follows:

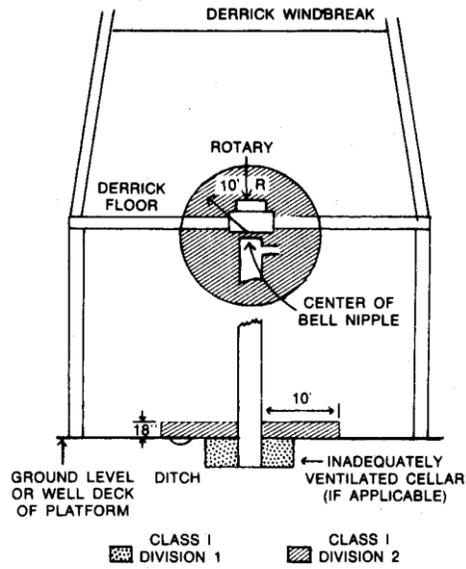


FIGURE 1  
DERRICK AND SUBSTRUCTURE  
WITH ADEQUATE VENTILATION  
(OPEN TOP AND V-DOOR AREA)

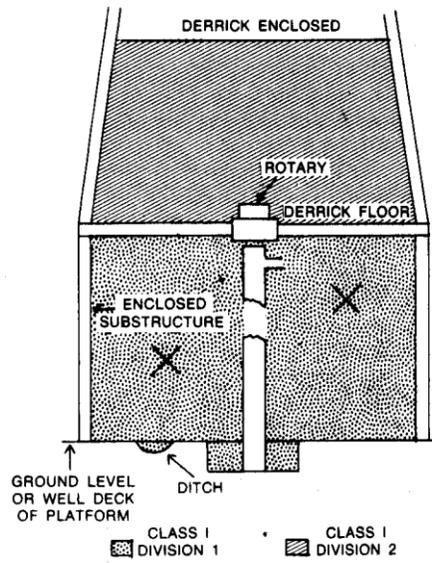


FIGURE 2  
ENCLOSED DERRICK (OPEN TOP)  
INADEQUATELY VENTILATED  
SUBSTRUCTURE

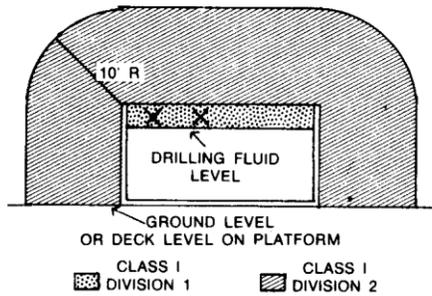


FIGURE 3  
DRILLING FLUID TANK OR OPEN SUMP  
WITH ADEQUATE VENTILATION

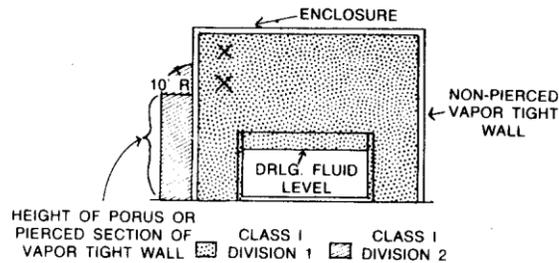


FIGURE 4  
DRILLING FLUID TANK OR OPEN SUMP  
IN AN ENCLOSURE

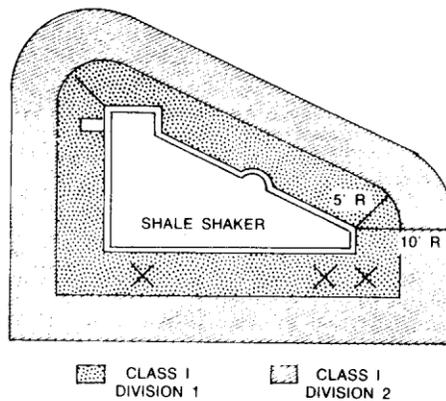


FIGURE 5  
VIBRATING SHALE SHAKER WITH ADEQUATELY  
VENTILATED AREA

R 408.15726. Blowout prevention equipment.

Rule 5726. (1) Before drilling out under surface casing, blowout preventing equipment shall be installed and maintained throughout the drilling operation.

(2) The blowout prevention equipment shall be as prescribed in the API RP53-1976 document entitled "Recommended Practices for Blowout Prevention Equipment Systems," which is adopted herein by reference and may be inspected at the **Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143** Lansing office of the department of Consumer and Industry Services. This information may be purchased at the cost of **\$125.00 \$2.50** from **IHS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179** or via the internet at website: <http://global.ihs.com> the American Petroleum Institute, 2101 L St., N.W., Washington, D.C. 20037, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.

(3) Where a ram-type preventer is used, it shall contain pipe rams to enable closure on the pipe being used.

(4) The choke line and kill line shall be anchored, tied, or otherwise secured to prevent whipping under pressure surges.

(5) While in service, blowout prevention equipment shall be inspected daily and a preventer mechanical test shall be performed daily to **ensure** ~~insure~~ that the preventers will function properly.

(6) A pipe fitting, valve, or union placed on or connected with blowout prevention equipment, well casing, casinghead, drill pipe, or tubing shall have a working pressure rating suitable for the maximum anticipated well surface pressure.

(7) Pressure testing of each component of the blowout preventer equipment shall be conducted before drilling out any string of casing, except conductor pipe. Drilling shall not proceed until blowout prevention equipment is found, upon testing, to be serviceable.

(8) If a blind ram is closed for any purpose, the valve on the choke line or relief line below the blind ram shall be opened before opening the ram to bleed off any pressure.

(9) At least 1 person who is capable of operating blowout prevention equipment shall be on the well site during well drilling operations.

R 408.15739. Pressure equipment.

Rule 5739. (1) ~~An air receiver shall be designed, installed and used as prescribed in MIOSHA standard 1910.169, Air Receivers, which was adopted by reference by section 14 of Act no. 154 of the Public Acts of 1974, as amended, being R 408.1014 of the Michigan Compiled Laws.~~

~~(2)~~ A relief valve discharge shall be located and anchored so as to prevent a hazardous condition due to sudden discharge or piping movement.

**(2)** ~~(3)~~ In normal operation, pumps, piping, hoses, valves, and other fittings shall not be operated at pressures greater than their rated working pressure and shall be maintained in good operating condition. Test pressures shall not exceed the design test pressure. Pumps, piping, hoses, and safety relief valves shall be of the design that meets the requirements of the operating conditions to be encountered.

**(3)** ~~(4)~~ Repairs to electrically driven pressure equipment shall not be performed unless the energy source has been interrupted at the switch box and the control has been locked.