DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

BUREAU OF SAFETY AND REGULATION

GENERAL INDUSTRY SAFETY STANDARDS COMMISSION

(By authority conferred on the general industry safety standards commission by sections 16 and 21 of Act No. 154 of the Public Acts of 1974, as amended, being SS408.1016 and 408.1021 of the Michigan Compiled Laws)

PART 54. POWERED GROUNDSKEEPING EQUIPMENT

GENERAL PROVISIONS

R 408.15401 Scope.

Rule 5401. This part provides rules for the construction, the maintenance and the safe operation of powered groundskeeping and related equipment and attachments by the employer and their safe use by the employee in, around or about a place of employment.

History: 1979 AC.

R 408.15403 Definitions; A to E.

Rule 5403. (1) "Attachment" means detachable equipment, such as, but not limited to, a mower, snow thrower, tiller or sweeper designed for use with a propulsion vehicle.

(2) "Blade enclosure" means the guard around the periphery of the rotary mower blade.

(3) "Braking distance" means the distance traveled between the point of first application of the brake to the point at which the vehicle comes to rest.

(4) "Discharge guide" means the device which directs the snow from the impeller to the deposit area, and which is rotatable to deliver the snow in the desired direction.

(5) "Edger-trimmer" means a walk behind powered machine with a rotary blade designed to edge grass in a vertical position and trim grass when adjusted to a horizontal position.

History: 1979 AC.

R 408.15404 Definitions; F to P.

Rule 5404. (1) "Foot protection" means footwear such as, but not limited to, safety shoes or strap-on foot guards.

(2) "Grass catcher" means a part or a combination of parts which provides a means for collecting grass clippings and other debris.

(3) "Groundskeeping equipment" means that equipment such as, but not limited to, lawn mowers, lawn and garden tractors, leaf blowers, snow throwers, shredders, compost mills and tillers used to maintain lawns, gardens, walks and drives.

(4) "Impeller" means a final power driven device which imparts energy to discharge the snow.

(5) "Power reel mower" means a grass cutting machine which uses a power source to rotate 1 or more helically formed blades about a horizontal axis to provide a shearing action with a stationary cutter bar.

(6) "Power rotary mower" means a grass cutting machine which uses a power source to rotate 1 or more blades about a vertical axis.

History: 1979 AC.

R 408.15405 Definitions; R, S.

Rule 5405. (1) "Riding garden tractor" means a self-propelled riding vehicle designed for general purpose lawn and garden work by use of attachments and which produces less than 1,500 pounds but more than 500 pounds of draw bar pull.

(2) "Riding lawn tractor" means a self-propelled riding vehicle designed for general purpose lawn work by use of separate attachments.

(3) "Riding mower" means a self-propelled riding vehicle designed specifically for cutting grass.

(4) "Rotary tiller" means a powered machine with steel tines attached to a horizontal shaft which revolves to till soil.

(5) "Shredder bagger" means a machine with a rotating device which breaks up debris such as leaves, twigs and small branches and packs it into a catcher or bag.

(6) "Single stage snow thrower" means a snow thrower which incorporates the impeller into the collector either at the end of the collector or in the middle.

(7) "Snow thrower" means a machine designed to move snow from 1 area to another.

(8) "Snow thrower collector" means an auger or similar device used to collect snow.

History: 1979 AC.

R 408.15406 Definitions; T to W.

Rule 5406. (1) "Tip speed" means the distance a rotary blade tip covers in 1 minute, or circumference in feet times revolution during a 1 minute interval.

(2) "Two stage snow thrower" means a snow thrower with the impeller as a separate unit from the collector.

(3) "Walk-behind mower" means a grass cutting machine either pushed or self-propelled, controlled by an operator walking behind the unit.

(4) "Walk-behind snow thrower" means a snow thrower either pushed or self-propelled, controlled by an operator walking behind the unit.

History: 1979 AC.

R 408.15411 Employer responsibility.

Rule 5411. An employer shall:

(a) Provide training to an operator of powered groundskeeping and related equipment regarding the operating procedures, hazards, and safeguards to the assigned job.

(b) Provide personal protective equipment necessary to protect the employee from the recognized hazards of the equipment as prescribed in Part 33. Personal Protective Equipment, being R 408.13301 et seq. of the Michigan Administrative Code, and require its use.

(c) Not allow powered groundskeeping and related equipment to be operated which is not guarded as prescribed by this part, or which has a known defect that could affect the safety of the operator.

(d) Not allow powered groundskeeping equipment and attachments to be used for operations other than those for which the equipment was designed.

History: 1979 AC; 1983 AACS.

R 408.15412 Employee responsibilities.

Rule 5412. An employee shall:

(a) Use personal protective equipment required by this part.

(b) Report to his supervisor any equipment or safeguard which is found defective.

(c) Not operate, lubricate or provide maintenance of any equipment until he is trained in the operation, lubrication, maintenance procedures, hazards and safeguards and has been authorized to do so.

(d) Not remove a guard except for authorized maintenance purposes. The guard shall be replaced before the machine is returned to operation.

History: 1979 AC.

R 408.15413 Personal protective equipment.

Rule 5413. (1) An operator of powered groundskeeping equipment subjected to a noise level in excess of that established by the department of public health, shall be provided with hearing protection prescribed by rule 6260 of the occupational health standards of the department of public health.

(2) When operating powered groundskeeping equipment an operator shall be provided with and use eye protection in accordance with, and as prescribed in, Part 33. Personal Protective Equipment, being R 408.13301 et seq. of the Michigan Administrative Code.

(3) An operator of a walk-behind power rotary mower shall not wear open-toed or canvas-type shoes.

(4) An operator of a power rotary mower shall be provided with and use foot protection as prescribed in Part 33. Personal Protective Equipment, being R 408.13301 et seq. of the Michigan Administrative Code.

History: 1979 AC; 1983 AACS.

R 408.15414 Lubrication and maintenance.

Rule 5414. Equipment covered by this part shall be shut off or disconnected during lubrication and maintenance, except when it is necessary to make adjustments with the power on.

History: 1979 AC.

R 408.15415 Labeling.

Rule 5415. (1) All positions of an operating control shall be legibly indentified by durable labels.

(2) Self-propelled groundskeeping equipment shall have a durable label at the engine starting control point with the wording, or similar wording, "Caution. Be sure the operating control is in neutral before starting engine."

(3) A walk-behind or riding rotary mower shall have labeled warning instructions at or near the discharge opening stating, "Caution. Mower shall not be used unless the opening guard or grass catcher is in place."

(4) A riding mower shall have a durable label installed in a place where the operator can readily see it stating, "Caution:

(a) Keep all guards and shields in place.

(b) Before leaving the operator's position, shift the transmission to neutral, set parking brake and disengage attachment clutch.

(c) Wait for all movement to stop before servicing machine."

(5) A snow thrower shall have a labeled warning instruction on the discharge guide stating, "Warning - Keep hands out of discharge guide while engine is running."

(6) A labeled warning instruction "Caution - Keep hands and feet clear of collector while engine is running" shall be placed on the collector housing of a snow thrower.

(7) All warning labels shall be maintained in a legible and readable condition.

History: 1979 AC; 1983 AACS.

R 408.15416 Operating rules generally.

Rule 5416. (1) A gas tank shall not be filled:

(a) Indoors, except in an area conforming to the requirements of the state fire marshal rules entitled "Flammable Liquids," being R 28.601 to R 28.739 of the Michigan Administrative Code.

(b) While the engine is running.

(c) While a source of ignition is present in the immediate area.

(2) A portable container used for refueling shall be an approved safety can with an automatic closing cap and flame arrester.

(3) Spills of gasoline which could create a hazard shall be cleaned up immediately.

(4) The drive mechanism of self-propelled groundskeeping equipment shall be disengaged before starting the motor or engine.

(5) An engine or motor governor adjustment shall not be made or changed to create an overspeed condition.

(6) An engine or motor shall be stopped and an inspection made after striking a foreign object with a machine or if a vibration develops.

(7) An engine or motor shall be stopped when clearing a clog or a jam or when removing an attachment.

(8) An area to be mowed shall be checked and cleared of any object which might be picked up and thrown by a blade.

(9) The discharge of material shall not be directed at another person.

(10) Groundskeeping equipment shall not be left running, unattended, if the operator is beyond vision or more than 25 feet away from the equipment.

(11) Groundskeeping equipment, without approved double insulation and powered by 110 volts or more, shall be connected to a grounded service outlet. Unless equipment is an approved double insulated device, its cord and any extension cords shall be of 3-wire grounded type and of a contrasting color to the foliage such as, but not limited to, orange or yellow.

(12) All rotating shafts, fly wheels, chains, belts, pulleys, and sprockets, shall be located or guarded to prevent accidental contact in accordance with and as prescribed in, Part 7. Guards for Power Transmission, being R 408.10701 to R 408.10765 of the Michigan Administrative Code.

History: 1979 AC; 1983 AACS.

SPECIFIC PROVISIONS

R 408.15421 Rescinded.

History: 1979 AC; 1983 AACS.

R 408.15422 Construction; powered mowers, lawn and garden tractors.

Rule 5422. A new powered lawn mower, lawn tractor, or a garden tractor and its attachments, purchased after the effective date of this part, shall meet the requirements of ANSI B71.1-1972 standard, "Safety Specifications for Power Lawn Tractors," which is incorporated herein by reference, and shall bear a permanently attached tag or label so indicating. This standard is available for inspection at the Lansing office of the department of labor and may be purchased from the American National Standards Institute, 1430 Broadway, New York, New York 10018, or from the Michigan Department of Labor, 7150 Harris Drive, Box 30015, Lansing, Michigan 48909, at a cost of $4.50 each.

History: 1979 AC; 1983 AACS.

R 408.15423--R 408.15425 Rescinded.

History: 1979 AC; 1983 AACS.

R 408.15426 Construction; snow throwers; general.

Rule 5426. (1) The speed of the collector shall not be more than the manufacturer's rated speed.

(2) The impeller of a 2-stage snow thrower shall not be more than the manufacturer's rated speed.

(3) A snow thrower collector housing shall extend to the front of the auger travel path on both sides.

(4) The collector shall incorporate a shear bolt or slip clutch protection against a blockage of the collector.

(5) The discharge guide rotating mechanism shall not be capable of delivering snow into the operator's area.

History: 1979 AC.

R 408.15427 Construction; walk-behind snow throwers.

Rule 5427. (1) A handle for a walk-behind snow thrower shall be secured to the snow thrower to prevent unintentional uncoupling.

(2) A positive upper limit stop or latch shall be provided for the handle of a walk-behind snow thrower at the upper normal position.

History: 1979 AC.

R 408.15428 Construction; riding snow throwers.

Rule 5428. (1) A riding snow thrower shall be provided with stops to prevent locking of the steering mechanism.

(2) The snow thrower controls shall be accessible to the operator from the operator's control position.

(3) A snow thrower shall have adjustable skid shoes or gauge wheels to control operating height.

History: 1979 AC.

R 408.15429 Controls; self-propelled snow throwers.

Rule 5429. (1) The traction drive directional control level, when provided on a self-propelled snow thrower, shall be moved forward to cause the machine to move forward and rearward to move in reverse.

(2) The throttle control of a self-propelled snow thrower, if separate from the directional control, shall be moved forward or upward to increase speed and rearward or downward to decrease speed.

History: 1979 AC; 1983 AACS.

R 408.15431 Rescinded.

History: 1979 AC; 1983 AACS.

R 408.15442 Operating rules; walk-behind mowers.

Rule 5442. (1) A walk-behind mower shall be moved across the face of a slope of more than 17 degrees, never up and down, except by use of a rope to raise and lower the mower while standing at the top of the slope.

(2) An electric powered walk-behind mower shall be shut off and disconnected from the electrical source when cleaning, repairing or adjusting.

(3) The operator shall maintain direct control of a self-propelled, walk-behind mower. The operator shall adjust the ground speed to his gait for proper control.

History: 1979 AC.

R 408.15443 Operating rules; riding vehicles.

Rule 5443. (1) A riding vehicle shall not carry a passenger other than the operator.

(2) The source of power to an attachment of a riding vehicle shall be disengaged when the attachment is not in use or is being transported.

(3) When a riding vehicle is left unattended, the steps listed in R 408.15415(4)(b) shall be followed.

(4) Riding groundskeeping equipment shall not be operated up or down a slope of more than 26 degrees or move across the face of a slope of more than 17 degrees.

(5) A deviation from the requirement of subrule (4) may be obtained from the department of labor by presenting special design or modification criteria which shows an ability to perform safely on a specific slope of a greater degree without slipping or tipping.

History: 1979 AC.

R 408.15444 Operating rules; snow throwers.

Rule 5444. (1) When necessary to operate a snow thrower over graveled areas, the snow thrower shall be placed in its highest operating position.

(2) An area to be cleared of snow shall be checked and cleared of any visible object that might stop the collector or be picked up and then thrown by the impeller.

(3) The collector clutch shall be disengaged when adjusting the deflector guide upward and downward.

(4) An employee shall not attempt to clear the discharge guide with the engine running.

(5) An operator shall maintain direct control of a self-propelled, walk-behind snow thrower. The operator shall adjust ground speed to his gait for control.

History: 1979 AC.

R 408.15451 Shredder baggers and compost mills.

Rule 5451. (1) The power of a shredder bagger or compost mill shall be shut off and all motion stopped before moving it.

(2) A clog or jam in a shredder bagger or compost mill shall not be cleared until the power has been shut off and all motion stopped.

(3) The hopper feed opening of a shredder bagger or compost mill shall be of such distance from the cutting knives or impeller so that an operator cannot make contact or a guarding means shall be employed. A baffle gate shall be installed at the feed opening of a hopper to reduce hazard of kickbacks.

(4) The discharge opening shall be covered by a guard, container or catcher whenever the shredder bagger or compost mill is under power.

History: 1979 AC.

R 408.15452 Edger-trimmer

Rule 5452. (1) The cutting blade of an edger-trimmer shall be covered with a guard to prevent foreign objects from being discharged into the operator's area or at an angle above 15 degrees from the ground.

(2) The power shall be shut off when converting from edging to trimming operation or from trimming to edging.

History: 1979 AC; 1983 AACS.

R 408.15461 Rotary tillers.

Rule 5461. (1) Rocks or other entanglements shall not be removed from the tines until the power has been shut off and all motion stopped.

(2) The tine area shall be operated or shielded in such a manner as to prevent debris or other missiles from being thrown.

(3) An operator shall maintain direct control of the rotary tiller. The operator shall adjust the ground speed to his gait for control.

History: 1979 AC; 1983 AACS.