567—20.2 (455B) Definitions. For the purpose of these rules, the following terms shall have the meaning indicated in this chapter. The definitions set out in Iowa Code section 455B.411 shall be considered to be incorporated verbatim in these rules.

"Air pollution alert" means that action condition declared when the concentrations of air contaminants reach the level at which the first stage control actions are to begin.

"Air pollution emergency" means that action condition declared when the air quality is continuing to degrade to a level that should never be reached, and that the most stringent control actions are necessary.

"Air pollution episode" means a combination of forecast or actual meteorological conditions and emissions of air contaminants which may or do present an imminent and substantial endangerment to the health of persons, during which the chief meteorological factors are the absence of winds that disperse air contaminants horizontally and a stable atmospheric layer which tends to inhibit vertical mixing through relatively deep layers.

"Air pollution forecast" means an air stagnation advisory issued to the department, the commission, and to appropriate air pollution control agencies by an authorized Air Stagnation Advisory Office of the National Weather Service predicting that meteorological conditions conducive to an air pollution episode may be imminent. This advisory may be followed by a prediction of the duration and termination of such meteorological conditions.

"Air pollution warning" means that action condition declared when the air quality is continuing to degrade from the levels classified as an air pollution alert, and where control actions in addition to those conducted under an air pollution alert are necessary.

"Air quality standard" means an allowable level of air contaminant or atmospheric air concentration established by the commission.

"Ambient air" means that portion of the atmosphere, external to buildings, to which the general public has access. Ambient air does not include the atmosphere over land owned or controlled by the source and to which public access is precluded by a fence or other physical barriers.

"Anaerobic lagoon" means an impoundment, the primary function of which is to store and stabilize organic wastes. The impoundment is designed to receive wastes on a regular basis and the design waste loading rates are such that the predominant biological activity in the impoundment will be anaerobic. An anaerobic lagoon does not include:

a. A runoff control basin which collects and stores only precipitation induced runoff from an open feedlot feeding operation; or

b. A waste slurry storage basin which receives waste discharges from confinement feeding operations and which is designed for complete removal of accumulated wastes from the basin at least semiannually; or

c. Any anaerobic treatment system which includes collection and treatment facilities for all off gases.

"ASME" means the American Society of Mechanical Engineers.

"ASTM" means the American Society for Testing and Materials.

"Auxiliary fuel firing equipment" means equipment to supply additional heat, by the combustion of an auxiliary fuel, for the purpose of attaining temperatures sufficient to dry and ignite the waste

material, to maintain ignition thereof, and to promote complete combustion of combustible gases, solids and vapors.

"Backyard burning" means the disposal of residential waste by open burning on the premises of the property where such waste is generated.

"Biodiesel fuel" means a renewable, biodegradable, mono alkyl ester combustible liquid fuel derived from agricultural plant oils or animal fat such as, but not limited to, soybean oil. For purposes of this definition, "biodiesel fuel" must also meet the specifications of American Society for Testing and Material Specifications (ASTM) D 6751-02, "Standard Specification for Biodiesel Fuel (B100) Blend Stock for Distillate Fuels," and be registered with the U.S. Environmental Protection Agency as a fuel and a fuel additive under Section 211(b) of the Clean Air Act, 42 U.S.C. Sections 7401, et seq. as amended through November 15, 1990.

"Btu" means British thermal unit, the quantity of heat required to raise the temperature of one pound of water from 59°F to 60°F.

"Carbonaceous fuel" means any form of combustible matter (whether solid, liquid, vapor or gas) consisting primarily of carbon-containing compounds in either fixed or volatile form, and which is burned primarily for its heat content.

"Chimney or stack" means any flue, conduit or duct permitting the discharge or passage of air contaminants into the open air, or constructed or arranged for this purpose.

"COH/1,000 linear feet" means coefficient of haze per 1,000 linear feet, which is a measure of the optical density of a filtered deposit of particulate matter as given in ASTM Standard D-1704-61, and indicated by the following formula:

$$\text{COH/1,000 linear feet} = \frac{\text{(Area tape, ft}^2\text{)(100,000)}}{\text{(Volume of air sample, ft}^3\text{)}} \log \frac{100}{\text{\% transmission}}$$

"Combustion for indirect heating" means the combustion of fuel to produce usable heat that is to be transferred through a heat-conducting materials barrier or by a heat storage medium to a material to be heated so that the material being heated is not contacted by, and adds no substance to, the products of combustion.

"Control equipment" means any equipment that has the function to prevent the formation of or the emission to the atmosphere of air contaminants from any fuel burning, incinerator or process equipment.

"Country grain elevator" shall have the same definition as "country grain elevator" set forth in 567—subrule 22.10(1).

"Criteria" means information used as guidelines for decisions when establishing air quality goals, air quality standards and the various air quality levels, and which in no case is to be confused or used interchangeably with air quality goals or standards.

"Diesel fuel" means a low sulfur fuel oil that complies with the specifications for grade 1-D or 2-D, as defined by the American Society of Testing and Materials (ASTM) D 975-02, "Standard Specification for Diesel Fuel Oils," grade 1-GT or 2-GT, as defined by ASTM D 2880-00, "Standard Specification for Gas Turbine Fuel Oils," or grade 1 or 2, as defined by ASTM D 396-02, "Standard Specification for Fuel Oils."

1. For purposes of the air quality rules contained in Title II, and unless otherwise specified, diesel fuel may contain a blend of up to 2.0 percent biodiesel fuel, by volume, as "biodiesel fuel" is defined in this rule.
2. The department shall consider air pollutant emissions calculations for the biodiesel fuel blends specified in numbered paragraph "1" to be equivalent to the air pollutant emissions calculations for unblended diesel fuel.
3. Construction permits or operating permits issued under 567—Chapter 22 which restrict equipment fuel use to diesel fuel shall be considered by the department to include the biodiesel fuel blends specified in numbered paragraph "1," unless otherwise specified in 567—Chapter 22 or in a permit issued under 567—Chapter 22.

"Director" means the director of the department of natural resources or the director's designee.

"Electric furnace" means a furnace in which the melting and refining of metals are accomplished by means of electrical energy.

"Emergency generator" means any generator of which the sole function is to provide emergency backup power during an interruption of electrical power from the electric utility. An emergency generator does not include:

1. Peaking units at electric utilities; or
2. Generators at industrial facilities that typically operate at low rates, but are not confined to emergency purposes; or
3. Any standby generators that are used during time periods when power is available from the electric utility.

An emergency is an unforeseeable condition that is beyond the control of the owner or operator.

"Emission limitation" and *"emission standard"* mean a requirement established by a state, local government, or the administrator which limits the quantity, rate or concentration of emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications or prescribe operation or maintenance procedures for a source to ensure continuous emission reduction.

"EPA conditional method" means any method of sampling and analyzing for air pollutants that has been validated by the administrator but that has not been published as an EPA reference method.

"EPA reference method" means the following methods used for performance tests and continuous monitoring systems:

1. Performance test (stack test). A stack test shall be conducted according to EPA reference methods specified in 40 CFR 51, Appendix M (as amended through April 2, 2014); 40 CFR 60, Appendix

A (as amended through February 27, 2014); 40 CFR 61, Appendix B (as amended through February 27, 2014); and 40 CFR 63, Appendix A (as amended through February 27, 2014).

2. Continuous monitoring systems. Minimum performance specifications and quality assurance procedures for performance evaluations of continuous monitoring systems are as specified in 40 CFR 60, Appendix B (as amended through February 27, 2014); 40 CFR 60, Appendix F (as amended through February 27, 2014); 40 CFR 75, Appendix A (as amended through January 18, 2012); 40 CFR 75, Appendix B (as amended through March 28, 2011); and 40 CFR 75, Appendix F (as amended through January 18, 2012).

"Equipment" means equipment capable of emitting air contaminants to produce air pollution such as fuel burning, combustion or process devices or apparatus including but not limited to fuel-burning equipment, refuse burning equipment used for the burning of fuel or other combustible material from which the products of combustion are emitted; and including but not limited to apparatus, equipment or process devices which generate heat and may emit products of combustion, and manufacturing, chemical, metallurgical or mechanical apparatus or process devices which may emit smoke, particulate matter or other air contaminants.

"Excess air" means that amount of air supplied in addition to the theoretical quantity necessary for complete combustion of all fuel or combustible waste material present.

"Excess emission" means any emission which exceeds any applicable emission standard prescribed in 567—Chapter 23 or rule 567—22.4(455B), 567—22.5(455B), 567—31.3(455B), or 567—33.3(455B) or any emission limit specified in a permit or order.

"Existing equipment" means equipment, machines, devices or installations that are in operation prior to September 23, 1970.

"Foundry cupola" means a stack-type furnace used for melting of metals consisting of, but not limited to, the furnace proper, tuyeres, fans or blowers, tapping spout, charging equipment, gas cleaning devices and other auxiliaries.

"Fugitive dust" means any airborne solid particulate matter emitted from any source other than a flue or stack.

"Garbage" means all solid and semisolid putrescible and nonputrescible animal and vegetable wastes resulting from the handling, preparing, cooking, storing and serving of food or of material intended for use as food, but excluding recognized industrial by-products.

"Gas cleaning device" means a facility designed to remove air contaminants from gases exhausted from equipment as defined herein.

"Goal" means a level of air quality which is expected to be obtained.

"Grain processing" means the equipment, or the combination of different types of equipment, used in the processing of grain to produce a product primarily for wholesale or retail sale for human or animal consumption, including the processing of grain for production of biofuels, except for "feed mill equipment," as "feed mill equipment" is defined in rule 567—22.10(455B).

"Grain storage elevator" means any plant or installation at which grain is unloaded, handled, cleaned, dried, stored, or loaded and that is located at any wheat flour mill, wet corn mill, dry corn mill

(human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity (grain storage capacity which is inside a building, bin, or silo) of more than 35,200 m^3 (ca. 1 million U.S. bushels).

"Greenhouse gas" means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

"Heating value" means the heat released by combustion of one pound of waste or fuel measured in Btu on an as received basis. For solid fuels, the heating value shall be determined by use of ASTM Standard D2015-66.

"Incinerator" means a combustion apparatus designed for high temperature operation in which solid, semisolid, liquid or gaseous combustible refuse is ignited and burned efficiently, and from which the solid residues contain little or no combustible material.

"Initiation of construction, installation or alteration" means significant permanent modification of a site to install equipment, control equipment or permanent structures. Not included are activities incident to preliminary engineering, environmental studies, or acquisition of a site for a facility.

"Landscape waste" means any vegetable or plant wastes except garbage. The term includes trees, tree trimmings, branches, stumps, brush, weeds, leaves, grass, shrubbery and yard trimmings.

"Level" means a certain specified degree, quality or characteristic.

"Malfunction" means any sudden and unavoidable failure of control equipment or of a process to operate in a normal manner. Any failure that is caused entirely or in part by poor maintenance, careless operation, lack of an adequate maintenance program, or any other preventable upset condition or preventable equipment breakdown shall not be considered a malfunction.

"Maximum achievable control technology (MACT)" means the following regarding regulated hazardous air pollutant sources:

1. For existing sources, the emissions limitation reflecting the maximum degree of reduction in emissions that the administrator or the department, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by sources in the category of stationary sources, that shall not be less stringent than the MACT floor.
2. For new sources, the emission limitation which is not less stringent than the emission limitation achieved in practice by the best-controlled similar source and which reflects the maximum degree of reduction in emissions that the administrator or the department, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the affected source.

"Maximum achievable control technology (MACT) floor" means the following:

1. For existing sources, the average emission limitation achieved by the best 12 percent of the existing sources in the United States (for which the administrator or the department has or could reasonably obtain emissions information), excluding those sources that have, within 18 months before the emission standard is proposed or within 30 months before such standard is promulgated, whichever is later, first achieved a level of emission rate or emission reduction which complies, or would comply

if the source is not subject to such standard, with the lowest achievable emission rate applicable to the source category and prevailing at the time, for categories and subcategories of stationary sources with 30 or more sources in the category or subcategory, or the average emission limitation achieved by the best-performing five sources in the United States (for which the administrator or the department has or could reasonably obtain emissions information), for a category or subcategory of stationary sources with fewer than 30 sources in the category or subcategory.

2. For new sources, the emission limitation achieved in practice by the best-controlled similar source.

"New equipment" means except for any equipment or modified equipment to which 567—subrule 23.1(2) applies, any equipment or control equipment not under construction or for which components have not been purchased on or before September 23, 1970, and any equipment which is altered or modified after such date, which may cause the emission of air contaminants or eliminate, reduce or control the emission of air contaminants.

"Number 1 fuel oil" and *"number 2 fuel oil,"* also known as "distillate oil," mean fuel oil that complies with the specifications for fuel oil number 1 or fuel oil number 2, as defined by the American Society of Testing and Materials (ASTM) D 396-02, "Standard Specification for Fuel Oils."

1. For purposes of the air quality rules contained in Title II, and unless otherwise specified, number 1 fuel oil or number 2 fuel oil may contain a blend of up to 2.0 percent biodiesel fuel, by volume, as "biodiesel fuel" is defined in this rule.

2. The department shall consider air pollutant emissions calculations for the biodiesel fuel blends specified in numbered paragraph "1" to be equivalent to the air pollutant emissions calculations for unblended number 1 fuel oil or unblended number 2 fuel oil.

3. Construction permits or operating permits issued under 567—Chapter 22 which restrict equipment fuel use to number 1 fuel oil or number 2 fuel oil shall be considered by the department to include the biodiesel fuel blends specified in numbered paragraph "1," unless otherwise specified in 567—Chapter 22 or in a permit issued under 567—Chapter 22.

"Objective" means a certain specified degree, quality or characteristic expected to be attained.

"Odor" means that which produces a response of the human sense of smell to an odorous substance.

"Odorous substance" means a gaseous, liquid, or solid material that elicits a physiological response by the human sense of smell.

"Odorous substance source" means any equipment, installation operation, or material which emits odorous substances; such as, but not limited to, a stack, chimney, vent, window, opening, basin, lagoon, pond, open tank, storage pile, or inorganic or organic discharges.

"One-hour period" means any 60-minute period commencing on the hour.

"Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background (See 567—Chapter 29).

"Open burning" means any burning of combustible materials where the products of combustion are emitted into the open air without passing through a chimney or stack.

"Particulate matter" (except for the purposes of new source performance standards as defined in 40 CFR 60) means any material, except uncombined water, that exists in a finely divided form as a liquid or solid at standard conditions and includes gaseous emissions that condense to liquid or solid form as measured by EPA-approved reference methods.

"Parts per million (PPM)" means a term which expresses the volumetric concentration of one material in one million unit volumes of a carrier material.

"Plan documents" means the reports, proposals, preliminary plans, survey and basis of design data, general and detail construction plans, profiles, specifications and all other information pertaining to equipment.

"PM_{10}" means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by an EPA-approved reference method.

"$PM_{2.5}$" means particulate matter as defined in this rule with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by an EPA-approved reference method.

"Potential to emit" means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the administrator. This term does not alter or affect the use of this term for any other purposes under the Act, or the term "capacity factor" as used in Title IV of the Act or the regulations relating to acid rain.

For the purpose of determining potential to emit for country grain elevators, the provisions set forth in 567—subrule 22.10(2) shall apply.

For purposes of calculating potential to emit for emergency generators, "maximum capacity" means one of the following:

1. 500 hours of operation annually, if the generator has actually been operated less than 500 hours per year for the past five years;
2. 8,760 hours of operation annually, if the generator has actually been operated more than 500 hours in one of the past five years; or
3. The number of hours specified in a state or federally enforceable limit.

If the source is subject to new source construction permit review, then potential to emit is defined as stated above or as established in a federally enforceable permit.

"Privileged communication" means information other than air pollutant emissions data the release of which would tend to affect adversely the competitive position of the owner or operator of the equipment.

"Process" means any action, operation or treatment, and all methods and forms of manufacturing or processing, that may emit smoke, particulate matter, gaseous matter or other air contaminant.

"Process weight" means the total weight of all materials introduced into any source operation. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not.

"Process weight rate" means continuous or long-run steady-state source operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof; or for a cyclical or batch source operation, the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the number of hours of actual process operation during such a period. Where the nature of any process or operation, or the design of any equipment is such as to permit more than one interpretation of this definition, the interpretation that results in the minimum value for allowable emission shall apply.

"Refuse" means garbage, rubbish and all other putrescible and nonputrescible wastes, except sewage and water-carried trade wastes.

"Residential waste" means any refuse generated on the premises as a result of residential activities. The term includes landscape waste grown on the premises or deposited thereon by the elements, but excludes garbage, tires, trade wastes, and any locally recyclable goods or plastics.

"Rubbish" means all waste materials of nonputrescible nature.

"Salvage operations" means any business, industry or trade engaged wholly or in part in salvaging or reclaiming any product or material, including, but not limited to, chemicals, drums, metals, motor vehicles or shipping containers.

"Shutdown" means the cessation of operation of any control equipment or process equipment or process for any purpose.

"Six-minute period" means any one of the ten equal parts of a one-hour period.

"Smoke" means gas-borne particles resulting from incomplete combustion, consisting predominantly, but not exclusively, of carbon, and other combustible material, or ash, that form a visible plume in the air.

"Smoke monitor" means a device using a light source and a light detector which can automatically measure and record the light-obscuring power of smoke at a specific location in the flue or stack of a source.

"Source operation" means the last operation preceding the emission of an air contaminant, and which results in the separation of the air contaminant from the process materials or in the conversion of the process materials into air contaminants, but is not an air pollution control operation.

"Standard conditions" means a temperature of 68°F and a pressure of 29.92 inches of mercury absolute.

"Standard cubic foot (SCF)" means the volume of one cubic foot of gas at standard conditions.

"Standard metropolitan statistical area (SMSA)" means an area which has at least one city with a population of at least 50,000 and such surrounding areas as geographically defined by the U.S. Bureau of the Budget (Department of Commerce).

"Startup" means the setting into operation of any control equipment or process equipment or process for any purpose.

"Stationary source" means any building, structure, facility or installation which emits or may emit any air pollutant.

"Theoretical air" means the exact amount of air required to supply the required oxygen for complete combustion of a given quantity of a specific fuel or waste.

"Total suspended particulate" means particulate matter as defined in this rule.

"Trade waste" means any refuse resulting from the prosecution of any trade, business, industry, commercial venture (including farming and ranching), or utility or service activity, and any governmental or institutional activity, whether or not for profit.

"12-month rolling period" means a period of 12 consecutive months determined on a rolling basis with a new 12-month period beginning on the first day of each calendar month.

"Untreated" as it refers to wood or wood products includes only wood or wood products that have not been treated with compounds such as, but not limited to, paint, pigment-stain, adhesive, varnish, lacquer, or resin or that have not been pressure treated with compounds such as, but not limited to, chromate copper acetate, pentachlorophenol or creosote. "Untreated" as it refers to seeds, pellets or other vegetative matter includes only seeds, pellets or other vegetative matter that has not been treated with pesticides or fungicides.

"Urban area" means any Iowa city of 100,000 or more population in the current census and all Iowa cities contiguous to such city.

"Variance" means a temporary waiver from rules or standards governing the quality, nature, duration or extent of emissions granted by the commission for a specified period of time.

"Volatile organic compounds" or *"VOC"* means any compound included in the definition of "volatile organic compounds" found at 40 CFR Section 51.100(s) as amended through March 27, 2014.

[**ARC 8215B** , IAB 10/7/09, effective 11/11/09; **ARC 0330C** , IAB 9/19/12, effective 10/24/12; **ARC 1227C** , IAB 12/11/13, effective 1/15/14; **ARC 1913C** , IAB 3/18/15, effective 4/22/15; **ARC 2949C** , IAB 2/15/17, effective 3/22/17]