

**STATE OF NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES**

**AIR RESOURCES DIVISION**

**Chapter Env-A 100 ORGANIZATIONAL RULES**

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Statutory Authority: RSA 125-C:4

**PART Env-A 101 DEFINITIONS**

1. Statutory Definitions Adopted. Unless otherwise indicated, all words used in these rules shall have the same meanings given them by RSA 125-C:2.
2. "Abatement" means either to reduce in amount and intensity, or to cease.
3. "Activity" means an endeavor initiated by and/or carried out by any person.
4. "Aerosols" means a system of particles suspended in gas which upon collection tend to coalesce and create uniform homogeneous films upon the surface of the collecting media.
5. "Air pollutant" means "aerosols, fume, gas, mist, other than uncombined water, odor, toxic or radioactive material, particulate matter, or any combination thereof. "Air pollutants" means "air contaminants" in RSA 125-C:2.
6. "Air pollution" means the presence in the ambient air of one or more pollutants or any combination thereof in sufficient quantities and of such characteristics and duration as are or are likely to be injurious to public welfare, to the health of human, plant, or animal life, or cause damage to property or create a disagreeable or unnatural odor or obscure visibility or which unreasonably interfere with the enjoyment of life and property.

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**Note:** Definitions which have been Incorporated By Reference into the New Hampshire State Implementation Plan are numbered consecutively above by EPA, and do not necessarily correspond to the State's assigned definition number in the New Hampshire State Regulation Env-A 100. It is New Hampshire's practice to renumber their definitions in Env-A 101 when definitions are added or deleted from the State Regulation.

7. "Air pollution control equipment" means any apparatus or process used, as a result of rules, in the control of air pollution or any process used, as a result of rules, in the control of air pollution or any process which controls air pollution but is not vital to the productions of normal product or normal operations.
8. "Allowable emissions" mean the emission rate calculated using the maximum rated capacity of the source, unless the source is subject to permit conditions which limit the operating rate and the most stringent of the following: applicable New Source Performance Standards, 40 CFR part 60, National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, or, New Hampshire State Implementation Plan emission limitations.
9. "Ambient air" means the unconfined atmosphere that envelopes the earth.
10. "Ambient air quality standard" means any standard which establishes the maximum allowable concentration of a specific pollutant in the ambient air of a region or subregion as established by the commissioner or administrator of the United States Environmental Protection Agency.
11. "Arithmetic mean" means the sum of N (number) factors divided by N.
12. "ASTM" means the American Society for Testing and Materials.
13. "Best available control technology (BACT)" means any emission control equipment or technique which the division determines to be available for maximum reduction of emissions. This determination shall consider the energy, environmental, and economic impacts on the source. The emission limits allowed by BACT shall not exceed the applicable limits for New Source Performance Standards, 40 CFR 60.
14. "British Thermal Unit (BTU)" means the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit at or near 39.2° F. A BTU is essentially 252 calories.
15. "Calorie" means the quantity of heat required to raise the temperature of one gram of water one degree Celsius at 4 degrees Centigrade.
16. "Carbon dioxide equivalent emissions (CO<sub>2</sub>e)" means a measurement of the global warming potential of GHGs emitted, determined by multiplying the mass amount of emissions in tons per year (tpy) of each gas in the pollutant group GHGs by the associated global warming potential for that gas published at Table A-1 to subpart A of 40 CFR part 98, Global Warming Potentials, and adding the resultant values to compute a tpy CO<sub>2</sub>e for the GHGs.
17. "Carbon monoxide" means a colorless, odorless, toxic gas having the molecular formula CO and is produced by incomplete burning of carbon containing substances.

18. "CAS" means Chemical Abstract Service of the American Chemical Society and is used to identify all existing chemicals through the use of unique numbers.
19. "Cement, ready mix concrete, and cement block source" means any source engaged in the manufacturing or handling of bulk cement, or the handling of cement and aggregate for the manufacture of ready mix cement or the manufacture and handling of cement blocks.
20. "Clean Air Act" means the Clean Air Act, 42 U.S.C. 7401, and amendments thereto amending 42 U.S.C. 1857 et seq.
21. "Cleaning solvent" means those volatile organic compounds used in the liquid or vapor form for the removal of soils from fibrous, non-fibrous, woven, non-woven, metallic, and non-metallic articles, materials or surfaces.
22. "Combustible products" means particulate and gaseous pollutants created by the oxidation or burning of any material.
23. "Commenced" means an owner or operator has undertaken a continuous program of construction or modification or that a binding general construction contract has been entered into which obligates one party to perform the work involved in such program of construction or modification.
24. "Control" means the application of equipment or methods designed to achieve the reductions of emissions necessary for attainment and maintenance of ambient air quality standards.
25. "Council" means the state of New Hampshire air resources council.
26. "Device" means any burner, furnace, machine, equipment or article which contributes or may contribute to the pollution of the air.
27. "Director" means the director of the New Hampshire air resources division.
28. "Division" means the state of New Hampshire air resources division.
29. "Effects factor" means a value assigned to air pollutants in the form of a numerical modifier which, when multiplied by emission rate, yields an allowable emission rate.
30. "Emission" means the release of air pollutants into the air. "Air pollutants" are "air contaminants" and "ambient air" is "outdoor atmosphere" in RSA 125-C:2.
31. "EPA" means the United States Environmental Protection Agency.

32. "Exhaust and ventilation system" means any system which removes and transports particulate matter, fumes, or any gaseous or gas borne products from their point of generation to the ambient air.
33. "Expediently as practicable" means the compliance time needed for the engineering, design, ordering, contracting, installation, and start-up of control equipment or process changes, while considering special individual problems encountered in the location and operation of such equipment or changes. Economic considerations are of secondary importance, and may justify additional time for compliance only if such additional time would result in major cost savings. Additional time for compliance with regulatory requirements which are aimed to achieve primary air quality standards can not be approved on the basis that the cost of compliance outweighs the benefits of compliance.
34. "Facility" means a stationary source.
35. "Ferrous foundry" means any source used for melting or refining ferrous metals such as iron consisting of, but not limited to, furnace proper, checkers, flues, stacks, tuyeres, fans or blowers, tapping spout, charging equipment, gas cleaning devices, and other auxiliaries. The foundry furnaces may be cupola, rotary, reverberatory, electric, air, open hearth, crucible, or other type furnaces.
36. "Flue gas" means the products of combustion that leave a combustion device by way of a flue or stack.
37. "Fly ash" means any solids carried in the gas stream being emitted from a flue or stack.
38. "Fuel" means any form of combustible matter such as solid, liquid, vaporous, or gaseous matter.
39. "Fuel burning device" means any device engineered to burn fuel for the primary purpose of producing heat or power.
40. "Fugitive dust" means particular matter composed of soil which is uncontaminated by pollutants resulting from industrial activity. Fugitive dust may include emissions from haul roads, wind erosion of exposed soil surfaces and soil storage piles, and other activities in which soil is either removed, stored, transported, or redistributed.
41. "Fugitive emissions" mean the gaseous or particulate matter generated by a stationary source which does not escape into the ambient air through primary exhaust systems such as a stack, but through openings such as windows, vents, doors, or poorly maintained equipment.

42. "Fumes" mean very small particles resulting from chemical reaction or from the condensation of vapors produced in combustion, distillation or sublimation. The particles are commonly metals or metallic oxides and their compositions may be different from that of the parent material from which they originate.
43. "Gases" mean formless fluids, which, under standard conditions, occupy the space of enclosure and which can be changed to the liquid or solid state only by the increase or decrease of pressure or temperature.
44. "Geometric mean" means the  $N^{\text{th}}$  (number) root of the product of N factors.
45. "Greenhouse gases (GHGs)" means the group of 6 gases that, when emitted to the ambient air, act as a shield to trap heat in the earth's atmosphere. The group is comprised of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.
46. "Heat release" means the amount of heat liberated by the complete combustion of a given unit of specific material and expressed as calories per second per cubic meter, British Thermal Units per hour per cubic foot, of the inside volume of the furnace in which the combustion takes place.
47. "Heating values" mean the calories, British Thermal Units, released by the combustion of a unit quantity of fuel or waste.
48. "Hydrocarbons" means compounds whose molecules consist of atoms of carbon and hydrogen and which exist in the ambient air in gaseous state at standard conditions.
59. "Incinerator" means a device engineered to burn or oxidize solid, semi-solid, liquid, or gaseous waste for the primary purpose of volume reduction, disposal, or chemical destruction, leaving little or no combustible material. Such devices may include heat recovery systems.
50. "Investment casting facilities" means any facility involving the fabrication of precision parts by means of the "lost wax process" or related methods.
51. "Lead" means a bluish-gray metallic chemical element with the symbol Pb.
52. "Lowest Achievable Emission Rate (LAER)" means the more stringent rate of emissions of either the lowest emission standard established by any state for such class or category of the source, unless the owner or operator demonstrates that the state limitations are not achievable, or the lowest emission limitations which is achieved in practice by such class or category of the source.
53. "Major source " means a stationary source that has been identified as meeting a specified threshold for producing pollutants of concern. The term includes:

- (a) "Acid rain affected source " as defined in this part;
- (b) "Major source " as defined in 40 CFR 70.2, July 1, 2009 edition, as amended at 75 FR 31607 by the addition of the phrase "subject to regulation" in paragraph (2) and the addition of a definition of that phrase;
- (c) "Major stationary source " as defined in paragraph (3) of the definition of major source in 40 CFR 70.2, including the following:

- (1) Any source with the potential to emit nitrogen oxides in the following counties and specific quantities:

- a. In Belknap, Carroll, Cheshire, Coos, Grafton, or Sullivan counties, 100 tpy or more; or

- b. In Hillsborough, Merrimack, Rockingham or Strafford counties, 50 tpy or more; or

- (2) Any source with the potential to emit volatile organic compounds in the quantity of 50 tpy or more; and

- (d) For purposes of Env-A 619, a major stationary source as defined in the federal definition cited in Env-A 619.03(a) or (b), as applicable.

54. "Minor permit amendment" means a change to a permit condition in a temporary permit or a state permit to operate issued to a source or device which does not:

- (a) Result in an increase in the amount of a specific air pollutant emitted by the source or device;

- (b) Result in the emission of any additional air pollutant; or

- (c) Necessitate the use of permit notice and hearing procedures.

55. "Mobile source" means any source involving motor vehicular activity.

56. "Modification" means any physical change in, or change in the operation of, a stationary source or device which increases the amount of a specific air pollutant emitted by such source or device, or which results in the emission of any additional air pollutant. A physical change or change in the method of operation shall not include:

- (a) Routine maintenance, repair, and replacement;

(b) Use of an alternative fuel or raw material by a stationary source which the source was capable of using before February 1, 1973 unless prohibited by an enforceable permit condition;

(c) Use of an alternative fuel derived from municipal solid waste in a steam generating unit;

(d) An increase in the hours of operation or in the production rate unless prohibited by an enforceable permit condition;

(e) Any change in ownership.

57. "Nitric acid production unit" means any facility producing weak nitric acid, 30% to 70% in strength, by either pressure or atmospheric pressure process.

58. "Nitrogen Oxide, NO<sub>x</sub>," means a gaseous mixture of nitrogen oxides, the most significant components of which are nitric oxide, having the molecular formula NO and nitrogen dioxide, having the molecular formula NO<sub>2</sub>.

59. "Non-attainment area" means an area which has been shown by monitored data or which is calculated by air quality modeling to exceed a New Hampshire or national ambient air quality standard for a specific pollutant.

60. "Non-ferrous foundry" means any facility used for melting or alloying non-ferrous metals such as brass, bronze and zinc, consisting of but not necessarily limited to rotary, reverberatory, induction furnaces: crucibles, or kettles. The furnace or other melting devices shall consist of furnace proper, flues, stacks, tuyeres, fans or blowers, tapping spout, charging equipment, gas cleaning devices, and other auxiliaries.

61. "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

62. "Open burning" means the burning of any type of combustible material in the open, not in any enclosure, where the products of combustion are emitted directly into the atmosphere without passing through a stack.

63. "Owner or operator" means any person who owns, leases, operates, controls, or supervises a stationary source or device.

64. "Ozone" means a compound having the molecular formula O<sub>3</sub>. It is the most prevalent of those compounds called photochemical oxidants that result from a complex series of atmospheric reactions initiated by sunlight. When reactive organic substances and nitrogen oxides accumulate in the atmosphere and are exposed to the ultraviolet component of sunlight, the formation of ozone and other photochemical oxidants take place.

65. "Particulate matter" means any material, except uncombined water, which is or has been suspended in air or other gases and which exists in a finely divided form as a liquid or solid at standard conditions.
66. "Person" means "person" as defined in RSA 125-C:2, X.
67. "Plant" means a stationary Source.
68. "Potential to emit" means the maximum capacity of a stationary source or device to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source or device to emit a 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 or the effect it would have on emissions is enforceable.
69. "Prevention" means to meet or satisfy in advance.
70. "Process" means any operation which combines devices, equipment, raw materials, utilities, and manpower for the production of goods, services, energy, pollution control or other purposes.
71. "Process weight" means the total weight of all materials, except uncombined water introduced into any source operation. Solid fuel charged shall be considered as part of the process weight but liquid and gaseous fuels and combustion air shall not.
72. "Process weight rate" means:
- (a) For 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 part thereof.
  - (b) For a cyclical or batch source operation, the total process weight for a period that covers a complete operation or any integral number of cycles, divided by the hours of actual process operation during such a period. When 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 emissions shall apply.
73. "Pulp and paper industry" means the segment of industry involving the manufacture of pulp, such as kraft and sulfite pulps, and paper, such as fine papers, coarse papers, and speciality papers.
74. "Records" means organized information pertinent to the discharge of air pollutants, of a quality consistent with good business practice, and as defined further in Part Env-A 901.



75. "Reasonable" means fair, proper, just, moderate, suitable under the circumstances.
76. "Reasonable further progress" means the annual incremental reductions in emissions of an applicable air pollutant which are sufficient in the judgement of the director, to provide for attainment of the applicable national ambient air quality standard by statutory dates in the Clean Air Act.
77. "Reasonably Available Control Technology, RACT" means devices, systems, process modifications, or other apparatus or techniques that are reasonably available taking into account the necessity of imposing such controls in order to attain and maintain a national ambient air quality standard; the social, environmental and economic impact of such controls; and alternative means of providing for attainment and maintenance of such standard.
78. "Ringelmann Smoke Chart" means a chart published and described in the U.S. Department of Interior, Bureau of Mines, Information Circular 8333, and on which are illustrated graduated shades of grey to black for use in estimating the light obscuring capacity of smoke.
79. "Sand and Gravel Facility" means any activity where grinding, crushing, drying, mixing, conveying, sizing and blending of rock, sand and gravel products is conducted, including all equipment and auxiliaries utilized in these functions.
80. "Smelter" means any source designed to separate a metal from its ore, or to produce scrap metal from secondary materials markets. A smelter source shall consist of various concentrating, roasting, smelting, sintering, condensing, and converting equipment and associated gas cleaning devices and other auxiliaries.
81. "Smoke" means small gas borne particles resulting from incomplete combustion consisting predominantly, but not exclusively of carbon ash and other combustible materials.
82. "Stack" means any chimney, flue, or duct arranged to discharge an emission to the ambient air.
83. "Standard conditions" mean a temperature of 20° C, or 68° F, and a pressure of 101.3 kilopascals, or 29.92 inches of Hg.
84. "Standard cubic foot" means one cubic foot of gas at 20° C, or 68 ° F, and at a pressure of 101.3 kilopascals, or 29.92 inches of Hg.
85. "Standard cubic meter" means one cubic meter of gas at 20° C, or 68 ° F, and a pressure of 101.3 kilopascals, or 29.92 inches of Hg.

86. "State Implementation Plan" means a plan required by the Clean Air Act containing strategies, programs and rules to attain and maintain the national ambient air quality standards.
87. "State permit to operate" means a permit that might contain conditions and which is issued prior to operation or modification of a stationary source, area source, or device.
88. "Stationary source" means any building, structure, facility, installation or other operation not identified as a mobile or indirect source which emits or may emit any air pollutant. A stationary source consists of one or more devices located on one or more contiguous or adjacent properties owned or operated by the same person.
89. "Sulfite mills" means any pulping process which uses, for a cooking liquor, an acidic solution containing sulfurous acid and bisulfite of an alkaline base such as calcium, sodium, ammonium or magnesium.
90. "Sulfur compound" means all organic or inorganic chemicals having an atom or atoms of sulfur in their chemical structure.
91. "Sulfur dioxide" means a colorless gas at standard conditions which has the molecular formula  $\text{SO}_2$ .
92. "Sulfuric acid production unit" means any source producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides, mercaptans, or acid sludge, but does not include sources where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the ambient air of sulfur dioxide or other sulfur compounds.
93. "Total reduced sulfur, TRS" means hydrogen sulfide, mercaptans, dimethyl sulfide and dimethyldisulfide present in the emissions from a pulp mill and expressed as  $\text{H}_2\text{S}$ .
94. "Waste" means any matter consisting of garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded or abandoned material including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities.
95. "Wood waste burner" means any device such as burners commonly known as teepees, wigwams, truncated cones or silos, used to dispose of wood waste by burning, which are not incinerators as defined in Env-A 101.50 and further in Env-A 1201.
96. "Volatile organic compounds, VOC, means any chemical compound or mixture of chemical compounds containing the element of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbonates and carbides and ammonium

carbonate. VOCs include, but are not limited to, petroleum crudes, petroleum fractions, petrochemicals, solvents, diluents, thinners, and degreasing agents, and propellants.