



State of Utah

GARY R. HERBERT
Governor

Department of
Environmental Quality

Amanda Smith
Acting Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

DAQ-054-09

MEMORANDUM

TO: Air Quality Board

THROUGH: Cheryl Heying, Executive Secretary

FROM: Kimberly Kreykes, Environmental Planning Consultant

DATE: August 13, 2009

SUBJECT: PROPOSE FOR PUBLIC COMMENT: Amend R307-101-2, General Requirements. Definitions.

In preparation for the development of the new PM_{2.5} State Implementation Plan (SIP), we are proposing the addition of "PM_{2.5}" to the definition contained in R307-101-2, *General Requirements. Definitions.*

"PM_{2.5}" means particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by an EPA reference or equivalent method.

"PM_{2.5}" is currently used in R307-150, *Emissions Inventories*, R307-302, *Davis, Salt Lake, Utah Counties: Residential Fireplaces and Stoves*, and R307-421, *PM₁₀ Offset Requirements in Salt Lake County and Utah County.*

Staff Recommendation: DAQ staff recommends that the Board propose the amended R307-101-2 for public comment.

1 R307. Environmental Quality, Air Quality.**2 R307-101. General Requirements.****3 R307-101-2. Definitions.**

4 Except where specified in individual rules, definitions in
5 R307-101-2 are applicable to all rules adopted by the Air Quality
6 Board.

7 "Actual Emissions" means the actual rate of emissions of a
8 pollutant from an emissions unit determined as follows:

9 (1) In general, actual emissions as of a particular date
10 shall equal the average rate, in tons per year, at which the unit
11 actually emitted the pollutant during a two-year period which
12 precedes the particular date and which is representative of normal
13 source operations. The Executive Secretary shall allow the use of
14 a different time period upon a determination that it is more
15 representative of normal source operation. Actual emissions shall
16 be calculated using the unit's actual operating hours, production
17 rates, and types of materials processed, stored, or combusted
18 during the selected time period.

19 (2) The Executive Secretary may presume that source-specific
20 allowable emissions for the unit are equivalent to the actual
21 emissions of the unit.

22 (3) For any emission unit, other than an electric utility
23 steam generating unit specified in (4), which has not begun normal
24 operations on the particular date, actual emissions shall equal
25 the potential to emit of the unit on that date.

26 (4) For an electric utility steam generating unit (other
27 than a new unit or the replacement of an existing unit) actual
28 emissions of the unit following the physical or operational change
29 shall equal the representative actual annual emissions of the
30 unit, provided the source owner or operator maintains and submits
31 to the executive secretary, on an annual basis for a period of 5
32 years from the date the unit resumes regular operation,
33 information demonstrating that the physical or operational change
34 did not result in an emissions increase. A longer period, not to
35 exceed 10 years, may be required by the executive secretary if the
36 executive secretary determines such a period to be more
37 representative of normal source post-change operations.

38 "Acute Hazardous Air Pollutant" means any noncarcinogenic
39 hazardous air pollutant for which a threshold limit value -
40 ceiling (TLV-C) has been adopted by the American Conference of
41 Governmental Industrial Hygienists (ACGIH) in its "Threshold Limit
42 Values for Chemical Substances and Physical Agents and Biological
43 Exposure Indices, (2009)."

44 "Air Contaminant" means any particulate matter or any gas,
45 vapor, suspended solid or any combination of them, excluding steam
46 and water vapors (Section 19-2-102(1)).

47 "Air Contaminant Source" means any and all sources of
48 emission of air contaminants whether privately or publicly owned
49 or operated (Section 19-2-102(2)).

50 "Air Pollution" means the presence in the ambient air of one
51 or more air contaminants in such quantities and duration and under
52 conditions and circumstances, as is or tends to be injurious to
53 human health or welfare, animal or plant life, or property, or

1 would unreasonably interfere with the enjoyment of life or use of
2 property as determined by the standards, rules and regulations
3 adopted by the Air Quality Board (Section 19-2-104).

4 "Allowable Emissions" means the emission rate of a source
5 calculated using the maximum rated capacity of the source (unless
6 the source is subject to enforceable limits which restrict the
7 operating rate, or hours of operation, or both) and the emission
8 limitation established pursuant to R307-401-8.

9 "Ambient Air" means the surrounding or outside air (Section
10 19-2-102(4)).

11 "Appropriate Authority" means the governing body of any city,
12 town or county.

13 "Atmosphere" means the air that envelops or surrounds the
14 earth and includes all space outside of buildings, stacks or
15 exterior ducts.

16 "Authorized Local Authority" means a city, county, city-
17 county or district health department; a city, county or
18 combination fire department; or other local agency duly designated
19 by appropriate authority, with approval of the state Department of
20 Health; and other lawfully adopted ordinances, codes or
21 regulations not in conflict therewith.

22 "Board" means Air Quality Board. See Section 19-2-102(6)(a).

23 "Breakdown" means any malfunction or procedural error, to
24 include but not limited to any malfunction or procedural error
25 during start-up and shutdown, which will result in the
26 inoperability or sudden loss of performance of the control
27 equipment or process equipment causing emissions in excess of
28 those allowed by approval order or Title R307.

29 "BTU" means British Thermal Unit, the quantity of heat
30 necessary to raise the temperature of one pound of water one
31 degree Fahrenheit.

32 "Calibration Drift" means the change in the instrument meter
33 readout over a stated period of time of normal continuous
34 operation when the VOC concentration at the time of measurement is
35 the same known upscale value.

36 "Carbon Adsorption System" means a device containing
37 adsorbent material (e.g., activated carbon, aluminum, silica gel),
38 an inlet and outlet for exhaust gases, and a system for the proper
39 disposal or reuse of all VOC adsorbed.

40 "Carcinogenic Hazardous Air Pollutant" means any hazardous
41 air pollutant that is classified as a known human carcinogen (A1)
42 or suspected human carcinogen (A2) by the American Conference of
43 Governmental Industrial Hygienists (ACGIH) in its "Threshold Limit
44 Values for Chemical Substances and Physical Agents and Biological
45 Exposure Indices, (2009)."

46 "Chargeable Pollutant" means any regulated air pollutant
47 except the following:

48 (1) Carbon monoxide;

49 (2) Any pollutant that is a regulated air pollutant solely
50 because it is a Class I or II substance subject to a standard
51 promulgated or established by Title VI of the Act, Stratospheric
52 Ozone Protection;

53 (3) Any pollutant that is a regulated air pollutant solely

1 because it is subject to a standard or regulation under Section
2 112(r) of the Act, Prevention of Accidental Releases.

3 "Chronic Hazardous Air Pollutant" means any noncarcinogenic
4 hazardous air pollutant for which a threshold limit value - time
5 weighted average (TLV-TWA) having no threshold limit value -
6 ceiling (TLV-C) has been adopted by the American Conference of
7 Governmental Industrial Hygienists (ACGIH) in its "Threshold Limit
8 Values for Chemical Substances and Physical Agents and Biological
9 Exposure Indices, (2009)."

10 "Clean Air Act" means federal Clean Air Act as amended in
11 1990.

12 "Clean Coal Technology" means any technology, including
13 technologies applied at the precombustion, combustion, or post
14 combustion stage, at a new or existing facility which will achieve
15 significant reductions in air emissions of sulfur dioxide or
16 oxides of nitrogen associated with the utilization of coal in the
17 generation of electricity, or process steam which was not in
18 widespread use as of November 15, 1990.

19 "Clean Coal Technology Demonstration Project" means a project
20 using funds appropriated under the heading "Department of Energy-
21 Clean Coal Technology," up to a total amount of \$2,500,000,000 for
22 commercial demonstration of clean coal technology, or similar
23 projects funded through appropriations for the Environmental
24 Protection Agency. The Federal contribution for a qualifying
25 project shall be at least 20 percent of the total cost of the
26 demonstration project.

27 "Clearing Index" means an indicator of the predicted rate of
28 clearance of ground level pollutants from a given area. This
29 number is provided by the National Weather Service.

30 "Commence" as applied to construction of a major source or
31 major modification means that the owner or operator has all
32 necessary pre-construction approvals or permits and either has:

33 (1) Begun, or caused to begin, a continuous program of
34 actual on-site construction of the source, to be completed within
35 a reasonable time; or

36 (2) Entered into binding agreements or contractual
37 obligations, which cannot be canceled or modified without
38 substantial loss to the owner or operator, to undertake a program
39 of actual construction of the source to be completed within a
40 reasonable time.

41 "Compliance Schedule" means a schedule of events, by date,
42 which will result in compliance with these regulations.

43 "Construction" means any physical change or change in the
44 method of operation including fabrication, erection, installation,
45 demolition, or modification of a source which would result in a
46 change in actual emissions.

47 "Control Apparatus" means any device which prevents or
48 controls the emission of any air contaminant directly or
49 indirectly into the outdoor atmosphere.

50 "Department" means Utah State Department of Environmental
51 Quality. See Section 19-1-103(1).

52 "Electric Utility Steam Generating Unit" means any steam
53 electric generating unit that is constructed for the purpose of

1 supplying more than one-third of its potential electric output
2 capacity and more than 25 MW electrical output to any utility
3 power distribution system for sale. Any steam supplied to a steam
4 distribution system for the purpose of providing steam to a steam-
5 electric generator that would produce electrical energy for sale
6 is also considered in determining the electrical energy output
7 capacity of the affected facility.

8 "Emission" means the act of discharge into the atmosphere of
9 an air contaminant or an effluent which contains or may contain an
10 air contaminant; or the effluent so discharged into the
11 atmosphere.

12 "Emissions Information" means, with reference to any source
13 operation, equipment or control apparatus:

14 (1) Information necessary to determine the identity, amount,
15 frequency, concentration, or other characteristics related to air
16 quality of any air contaminant which has been emitted by the
17 source operation, equipment, or control apparatus;

18 (2) Information necessary to determine the identity, amount,
19 frequency, concentration, or other characteristics (to the extent
20 related to air quality) of any air contaminant which, under an
21 applicable standard or limitation, the source operation was
22 authorized to emit (including, to the extent necessary for such
23 purposes, a description of the manner or rate of operation of the
24 source operation), or any combination of the foregoing; and

25 (3) A general description of the location and/or nature of
26 the source operation to the extent necessary to identify the
27 source operation and to distinguish it from other source
28 operations (including, to the extent necessary for such purposes,
29 a description of the device, installation, or operation
30 constituting the source operation).

31 "Emission Limitation" means a requirement established by the
32 Board or the Administrator, EPA, which limits the quantity, rate
33 or concentration of emission of air pollutants on a continuous
34 emission reduction including any requirement relating to the
35 operation or maintenance of a source to assure continuous emission
36 reduction (Section 302(k)).

37 "Emissions Unit" means any part of a stationary source which
38 emits or would have the potential to emit any pollutant subject to
39 regulation under the Clean Air Act.

40 "Enforceable" means all limitations and conditions which are
41 enforceable by the Administrator, including those requirements
42 developed pursuant to 40 CFR Parts 60 and 61, requirements within
43 the State Implementation Plan and R307, any permit requirements
44 established pursuant to 40 CFR 52.21 or R307-401.

45 "EPA" means Environmental Protection Agency.

46 "EPA Method 9" means 40 CFR Part 60, Appendix A, Method 9,
47 "Visual Determination of Opacity of Emissions from Stationary
48 Sources," and Alternate 1, "Determination of the opacity of
49 emissions from stationary sources remotely by LIDAR."

50 "Executive Director" means the Executive Director of the Utah
51 Department of Environmental Quality. See Section 19-1-103(2).

52 "Executive Secretary" means the Executive Secretary of the
53 Board.

1 "Existing Installation" means an installation, construction
2 of which began prior to the effective date of any regulation
3 having application to it.

4 "Facility" means machinery, equipment, structures of any part
5 or accessories thereof, installed or acquired for the primary
6 purpose of controlling or disposing of air pollution. It does not
7 include an air conditioner, fan or other similar device for the
8 comfort of personnel.

9 "Fireplace" means all devices both masonry or factory built
10 units (free standing fireplaces) with a hearth, fire chamber or
11 similarly prepared device connected to a chimney which provides
12 the operator with little control of combustion air, leaving its
13 fire chamber fully or at least partially open to the room.
14 Fireplaces include those devices with circulating systems, heat
15 exchangers, or draft reducing doors with a net thermal efficiency
16 of no greater than twenty percent and are used for aesthetic
17 purposes.

18 "Fugitive Dust" means particulate, composed of soil and/or
19 industrial particulates such as ash, coal, minerals, etc., which
20 becomes airborne because of wind or mechanical disturbance of
21 surfaces. Natural sources of dust and fugitive emissions are not
22 fugitive dust within the meaning of this definition.

23 "Fugitive Emissions" means emissions from an installation or
24 facility which are neither passed through an air cleaning device
25 nor vented through a stack or could not reasonably pass through a
26 stack, chimney, vent, or other functionally equivalent opening.

27 "Garbage" means all putrescible animal and vegetable matter
28 resulting from the handling, preparation, cooking and consumption
29 of food, including wastes attendant thereto.

30 "Gasoline" means any petroleum distillate, used as a fuel for
31 internal combustion engines, having a Reid vapor pressure of 4
32 pounds or greater.

33 "Hazardous Air Pollutant (HAP)" means any pollutant listed by
34 the EPA as a hazardous air pollutant in conformance with Section
35 112(b) of the Clean Air Act. A list of these pollutants is
36 available at the Division of Air Quality.

37 "Household Waste" means any solid or liquid material normally
38 generated by the family in a residence in the course of ordinary
39 day-to-day living, including but not limited to garbage, paper
40 products, rags, leaves and garden trash.

41 "Incinerator" means a combustion apparatus designed for high
42 temperature operation in which solid, semisolid, liquid, or
43 gaseous combustible wastes are ignited and burned efficiently and
44 from which the solid and gaseous residues contain little or no
45 combustible material.

46 "Installation" means a discrete process with identifiable
47 emissions which may be part of a larger industrial plant.
48 Pollution equipment shall not be considered a separate
49 installation or installations.

50 "LPG" means liquified petroleum gas such as propane or
51 butane.

52 "Maintenance Area" means an area that is subject to the
53 provisions of a maintenance plan that is included in the Utah

1 state implementation plan, and that has been redesignated by EPA
2 from nonattainment to attainment of any National Ambient Air
3 Quality Standard.

4 (a) The following areas are considered maintenance areas for
5 ozone:

6 (i) Salt Lake County, effective August 18, 1997; and

7 (ii) Davis County, effective August 18, 1997.

8 (b) The following areas are considered maintenance areas for
9 carbon monoxide:

10 (i) Salt Lake City, effective March 22, 1999;

11 (ii) Ogden City, effective May 8, 2001; and

12 (iii) Provo City, effective January 3, 2006.

13 (c) The following areas are considered maintenance areas for
14 PM10:

15 (i) Salt Lake County, effective on the date that EPA
16 approves the maintenance plan that was adopted by the Board on
17 July 6, 2005; and

18 (ii) Utah County, effective on the date that EPA approves
19 the maintenance plan that was adopted by the Board on July 6,
20 2005; and

21 (iii) Ogden City, effective on the date that EPA approves
22 the maintenance plan that was adopted by the Board on July 6,
23 2005.

24 (d) The following area is considered a maintenance area for
25 sulfur dioxide: all of Salt Lake County and the eastern portion
26 of Tooele County above 5600 feet, effective on the date that EPA
27 approves the maintenance plan that was adopted by the Board on
28 January 5, 2005.

29 "Major Modification" means any physical change in or change
30 in the method of operation of a major source that would result in
31 a significant net emissions increase of any pollutant. A net
32 emissions increase that is significant for volatile organic
33 compounds shall be considered significant for ozone. Within Salt
34 Lake and Davis Counties or any nonattainment area for ozone, a net
35 emissions increase that is significant for nitrogen oxides shall
36 be considered significant for ozone. Within areas of
37 nonattainment for PM10, a significant net emission increase for
38 any PM10 precursor is also a significant net emission increase for
39 PM10. A physical change or change in the method of operation
40 shall not include:

41 (1) routine maintenance, repair and replacement;

42 (2) use of an alternative fuel or raw material by reason of
43 an order under section 2(a) and (b) of the Energy Supply and
44 Environmental Coordination Act of 1974, or by reason of a natural
45 gas curtailment plan pursuant to the Federal Power Act;

46 (3) use of an alternative fuel by reason of an order or rule
47 under section 125 of the federal Clean Air Act;

48 (4) use of an alternative fuel at a steam generating unit to
49 the extent that the fuel is generated from municipal solid waste;

50 (5) use of an alternative fuel or raw material by a source:

51 (a) which the source was capable of accommodating before
52 January 6, 1975, unless such change would be prohibited under any
53 enforceable permit condition; or

1 (b) which the source is otherwise approved to use;

2 (6) an increase in the hours of operation or in the
3 production rate unless such change would be prohibited under any
4 enforceable permit condition;

5 (7) any change in ownership at a source

6 (8) the addition, replacement or use of a pollution control
7 project at an existing electric utility steam generating unit,
8 unless the executive secretary determines that such addition,
9 replacement, or use renders the unit less environmentally
10 beneficial, or except:

11 (a) when the executive secretary has reason to believe that
12 the pollution control project would result in a significant net
13 increase in representative actual annual emissions of any criteria
14 pollutant over levels used for that source in the most recent air
15 quality impact analysis in the area conducted for the purpose of
16 Title I of the Clean Air Act, if any, and

17 (b) the executive secretary determines that the increase
18 will cause or contribute to a violation of any national ambient
19 air quality standard or PSD increment, or visibility limitation.

20 (9) the installation, operation, cessation, or removal of a
21 temporary clean coal technology demonstration project, provided
22 that the project complies with:

23 (a) the Utah State Implementation Plan; and

24 (b) other requirements necessary to attain and maintain the
25 national ambient air quality standards during the project and
26 after it is terminated.

27 "Major Source" means, to the extent provided by the federal
28 Clean Air Act as applicable to R307:

29 (1) any stationary source of air pollutants which emits, or
30 has the potential to emit, one hundred tons per year or more of
31 any pollutant subject to regulation under the Clean Air Act; or

32 (a) any source located in a nonattainment area for carbon
33 monoxide which emits, or has the potential to emit, carbon
34 monoxide in the amounts outlined in Section 187 of the federal
35 Clean Air Act with respect to the severity of the nonattainment
36 area as outlined in Section 187 of the federal Clean Air Act; or

37 (b) any source located in Salt Lake or Davis Counties or in
38 a nonattainment area for ozone which emits, or has the potential
39 to emit, VOC or nitrogen oxides in the amounts outlined in Section
40 182 of the federal Clean Air Act with respect to the severity of
41 the nonattainment area as outlined in Section 182 of the federal
42 Clean Air Act; or

43 (c) any source located in a nonattainment area for PM10
44 which emits, or has the potential to emit, PM10 or any PM10
45 precursor in the amounts outlined in Section 189 of the federal
46 Clean Air Act with respect to the severity of the nonattainment
47 area as outlined in Section 189 of the federal Clean Air Act.

48 (2) any physical change that would occur at a source not
49 qualifying under subpart 1 as a major source, if the change would
50 constitute a major source by itself;

51 (3) the fugitive emissions and fugitive dust of a stationary
52 source shall not be included in determining for any of the
53 purposes of these R307 rules whether it is a major stationary

1 source, unless the source belongs to one of the following
2 categories of stationary sources:

- 3 (a) Coal cleaning plants (with thermal dryers);
- 4 (b) Kraft pulp mills;
- 5 (c) Portland cement plants;
- 6 (d) Primary zinc smelters;
- 7 (e) Iron and steel mills;
- 8 (f) Primary aluminum or reduction plants;
- 9 (g) Primary copper smelters;
- 10 (h) Municipal incinerators capable of charging more than 250
11 tons of refuse per day;
- 12 (i) Hydrofluoric, sulfuric, or nitric acid plants;
- 13 (j) Petroleum refineries;
- 14 (k) Lime plants;
- 15 (l) Phosphate rock processing plants;
- 16 (m) Coke oven batteries;
- 17 (n) Sulfur recovery plants;
- 18 (o) Carbon black plants (furnace process);
- 19 (p) Primary lead smelters;
- 20 (q) Fuel conversion plants;
- 21 (r) Sintering plants;
- 22 (s) Secondary metal production plants;
- 23 (t) Chemical process plants;
- 24 (u) Fossil-fuel boilers (or combination thereof) totaling
25 more than 250 million British Thermal Units per hour heat input;
- 26 (v) Petroleum storage and transfer units with a total
27 storage capacity exceeding 300,000 barrels;
- 28 (w) Taconite ore processing plants;
- 29 (x) Glass fiber processing plants;
- 30 (y) Charcoal production plants;
- 31 (z) Fossil fuel-fired steam electric plants of more than 250
32 million British Thermal Units per hour heat input;
- 33 (aa) Any other stationary source category which, as of
34 August 7, 1980, is being regulated under section 111 or 112 of the
35 federal Clean Air Act.

36 "Modification" means any planned change in a source which
37 results in a potential increase of emission.

38 "National Ambient Air Quality Standards (NAAQS)" means the
39 allowable concentrations of air pollutants in the ambient air
40 specified by the Federal Government (Title 40, Code of Federal
41 Regulations, Part 50).

42 "Net Emissions Increase" means the amount by which the sum of
43 the following exceeds zero:

- 44 (1) any increase in actual emissions from a particular
45 physical change or change in method of operation at a source; and
- 46 (2) any other increases and decreases in actual emissions at
47 the source that are contemporaneous with the particular change and
48 are otherwise creditable. For purposes of determining a "net
49 emissions increase":

50 (a) An increase or decrease in actual emissions is
51 contemporaneous with the increase from the particular change only
52 if it occurs between the date five years before construction on
53 the particular change commences; and the date that the increase

1 from the particular change occurs.

2 (b) An increase or decrease in actual emissions is
3 creditable only if it has not been relied on in issuing a prior
4 approval for the source which approval is in effect when the
5 increase in actual emissions for the particular change occurs.

6 (c) An increase or decrease in actual emission of sulfur
7 dioxide, nitrogen oxides or particulate matter which occurs before
8 an applicable minor source baseline date is creditable only if it
9 is required to be considered in calculating the amount of maximum
10 allowable increases remaining available. With respect to
11 particulate matter, only PM10 emissions will be used to evaluate
12 this increase or decrease.

13 (d) An increase in actual emissions is creditable only to
14 the extent that the new level of actual emissions exceeds the old
15 level.

16 (e) A decrease in actual emissions is creditable only to the
17 extent that:

18 (i) The old level of actual emissions or the old level of
19 allowable emissions, whichever is lower, exceeds the new level of
20 actual emissions;

21 (ii) It is enforceable at and after the time that actual
22 construction on the particular change begins; and

23 (iii) It has approximately the same qualitative significance
24 for public health and welfare as that attributed to the increase
25 from the particular change.

26 (iv) It has not been relied on in issuing any permit under
27 R307-401 nor has it been relied on in demonstrating attainment or
28 reasonable further progress.

29 (f) An increase that results from a physical change at a
30 source occurs when the emissions unit on which construction
31 occurred becomes operational and begins to emit a particular
32 pollutant. Any replacement unit that requires shakedown becomes
33 operational only after a reasonable shakedown period, not to
34 exceed 180 days.

35 "New Installation" means an installation, construction of
36 which began after the effective date of any regulation having
37 application to it.

38 "Nonattainment Area" means an area designated by the
39 Environmental Protection Agency as nonattainment under Section
40 107, Clean Air Act for any National Ambient Air Quality Standard.
41 The designations for Utah are listed in 40 CFR 81.345.

42 "Offset" means an amount of emission reduction, by a source,
43 greater than the emission limitation imposed on such source by
44 these regulations and/or the State Implementation Plan.

45 "Opacity" means the capacity to obstruct the transmission of
46 light, expressed as percent.

47 "Open Burning" means any burning of combustible materials
48 resulting in emission of products of combustion into ambient air
49 without passage through a chimney or stack.

50 "Owner or Operator" means any person who owns, leases,
51 controls, operates or supervises a facility, an emission source,
52 or air pollution control equipment.

53 "PSD" Area means an area designated as attainment or

1 unclassifiable under section 107(d)(1)(D) or (E) of the federal
2 Clean Air Act.

3 "PM2.5" means particulate matter with an aerodynamic diameter
4 less than or equal to a nominal 2.5 micrometers as measured by an
5 EPA reference or equivalent method.

6 "PM10" means particulate matter with an aerodynamic diameter
7 less than or equal to a nominal 10 micrometers as measured by an
8 EPA reference or equivalent method.

9 "PM10 Precursor" means any chemical compound or substance
10 which, after it has been emitted into the atmosphere, undergoes
11 chemical or physical changes that convert it into particulate
12 matter, specifically PM10.

13 "Part 70 Source" means any source subject to the permitting
14 requirements of R307-415.

15 "Person" means an individual, trust, firm, estate, company,
16 corporation, partnership, association, state, state or federal
17 agency or entity, municipality, commission, or political
18 subdivision of a state. (Subsection 19-2-103(4)).

19 "Pollution Control Project" means any activity or project at
20 an existing electric utility steam generating unit for purposes of
21 reducing emissions from such unit. Such activities or projects
22 are limited to:

23 (1) The installation of conventional or innovative pollution
24 control technology, including but not limited to advanced flue gas
25 desulfurization, sorbent injection for sulfur dioxide and nitrogen
26 oxides controls and electrostatic precipitators;

27 (2) An activity or project to accommodate switching to a
28 fuel which is less polluting than the fuel used prior to the
29 activity or project, including, but not limited to natural gas or
30 coal reburning, or the cofiring of natural gas and other fuels for
31 the purpose of controlling emissions;

32 (3) A permanent clean coal technology demonstration project
33 conducted under Title II, sec. 101(d) of the Further Continuing
34 Appropriations Act of 1985 (sec. 5903(d) of title 42 of the United
35 States Code), or subsequent appropriations, up to a total amount
36 of \$2,500,000,000 for commercial demonstration of clean coal
37 technology, or similar projects funded through appropriations for
38 the Environmental Protection Agency; or

39 (4) A permanent clean coal technology demonstration project
40 that constitutes a repowering project.

41 "Potential to Emit" means the maximum capacity of a source to
42 emit a pollutant under its physical and operational design. Any
43 physical or operational limitation on the capacity of the source
44 to emit a pollutant including air pollution control equipment and
45 restrictions on hours of operation or on the type or amount of
46 material combusted, stored, or processed shall be treated as part
47 of its design if the limitation or the effect it would have on
48 emissions is enforceable. Secondary emissions do not count in
49 determining the potential to emit of a stationary source.

50 "Process Level" means the operation of a source, specific to
51 the kind or type of fuel, input material, or mode of operation.

52 "Process Rate" means the quantity per unit of time of any raw
53 material or process intermediate consumed, or product generated,

1 through the use of any equipment, source operation, or control
2 apparatus. For a stationary internal combustion unit or any other
3 fuel burning equipment, this term may be expressed as the quantity
4 of fuel burned per unit of time.

5 "Reactivation of a Very Clean Coal-Fired Electric Utility
6 Steam Generating Unit" means any physical change or change in the
7 method of operation associated with the commencement of commercial
8 operations by a coal-fired utility unit after a period of
9 discontinued operation where the unit:

10 (1) Has not been in operation for the two-year period prior
11 to the enactment of the Clean Air Act Amendments of 1990, and the
12 emissions from such unit continue to be carried in the emission
13 inventory at the time of enactment;

14 (2) Was equipped prior to shutdown with a continuous system
15 of emissions control that achieves a removal efficiency for sulfur
16 dioxide of no less than 85 percent and a removal efficiency for
17 particulates of no less than 98 percent;

18 (3) Is equipped with low-NOx burners prior to the time of
19 commencement of operations following reactivation; and

20 (4) Is otherwise in compliance with the requirements of the
21 Clean Air Act.

22 "Reasonable Further Progress" means annual incremental
23 reductions in emission of an air pollutant which are sufficient to
24 provide for attainment of the NAAQS by the date identified in the
25 State Implementation Plan.

26 "Refuse" means solid wastes, such as garbage and trash.

27 "Regulated air pollutant" means any of the following:

28 (a) Nitrogen oxides or any volatile organic compound;

29 (b) Any pollutant for which a national ambient air quality
30 standard has been promulgated;

31 (c) Any pollutant that is subject to any standard
32 promulgated under Section 111 of the Act, Standards of Performance
33 for New Stationary Sources;

34 (d) Any Class I or II substance subject to a standard
35 promulgated under or established by Title VI of the Act,
36 Stratospheric Ozone Protection;

37 (e) Any pollutant subject to a standard promulgated under
38 Section 112, Hazardous Air Pollutants, or other requirements
39 established under Section 112 of the Act, including Sections
40 112(g), (j), and (r) of the Act, including any of the following:

41 (i) Any pollutant subject to requirements under Section
42 112(j) of the Act, Equivalent Emission Limitation by Permit. If
43 the Administrator fails to promulgate a standard by the date
44 established pursuant to Section 112(e) of the Act, any pollutant
45 for which a subject source would be major shall be considered to
46 be regulated on the date 18 months after the applicable date
47 established pursuant to Section 112(e) of the Act;

48 (ii) Any pollutant for which the requirements of Section
49 112(g)(2) of the Act (Construction, Reconstruction and
50 Modification) have been met, but only with respect to the
51 individual source subject to Section 112(g)(2) requirement.

52 "Repowering" means replacement of an existing coal-fired
53 boiler with one of the following clean coal technologies:

1 atmospheric or pressurized fluidized bed combustion, integrated
2 gasification combined cycle, magnetohydrodynamics, direct and
3 indirect coal-fired turbines, integrated gasification fuel cells,
4 or as determined by the Administrator, in consultation with the
5 Secretary of Energy, a derivative of one or more of these
6 technologies, and any other technology capable of controlling
7 multiple combustion emissions simultaneously with improved boiler
8 or generation efficiency and with significantly greater waste
9 reduction relative to the performance of technology in widespread
10 commercial use as of November 15, 1990.

11 (1) Repowering shall also include any oil and/or gas-fired
12 unit which has been awarded clean coal technology demonstration
13 funding as of January 1, 1991, by the Department of Energy.

14 (2) The executive secretary shall give expedited
15 consideration to permit applications for any source that satisfies
16 the requirements of this definition and is granted an extension
17 under section 409 of the Clean Air Act.

18 "Representative Actual Annual Emissions" means the average
19 rate, in tons per year, at which the source is projected to emit a
20 pollutant for the two-year period after a physical change or
21 change in the method of operation of unit, (or a different
22 consecutive two-year period within 10 years after that change,
23 where the executive secretary determines that such period is more
24 representative of source operations), considering the effect any
25 such change will have on increasing or decreasing the hourly
26 emissions rate and on projected capacity utilization. In
27 projecting future emissions the executive secretary shall:

28 (1) Consider all relevant information, including but not
29 limited to, historical operational data, the company's own
30 representations, filings with the State of Federal regulatory
31 authorities, and compliance plans under title IV of the Clean Air
32 Act; and

33 (2) Exclude, in calculating any increase in emissions that
34 results from the particular physical change or change in the
35 method of operation at an electric utility steam generating unit,
36 that portion of the unit's emissions following the change that
37 could have been accommodated during the representative baseline
38 period and is attributable to an increase in projected capacity
39 utilization at the unit that is unrelated to the particular
40 change, including any increased utilization due to the rate of
41 electricity demand growth for the utility system as a whole.

42 "Residence" means a dwelling in which people live, including
43 all ancillary buildings.

44 "Residential Solid Fuel Burning" device means any residential
45 burning device except a fireplace connected to a chimney that
46 burns solid fuel and is capable of, and intended for use as a
47 space heater, domestic water heater, or indoor cooking appliance,
48 and has an air-to-fuel ratio less than 35-to-1 as determined by
49 the test procedures prescribed in 40 CFR 60.534. It must also
50 have a useable firebox volume of less than 6.10 cubic meters or 20
51 cubic feet, a minimum burn rate less than 5 kilograms per hour or
52 11 pounds per hour as determined by test procedures prescribed in
53 40 CFR 60.534, and weigh less than 800 kilograms or 362.9 pounds.

1 Appliances that are described as prefabricated fireplaces and are
2 designed to accommodate doors or other accessories that would
3 create the air starved operating conditions of a residential solid
4 fuel burning device shall be considered as such. Fireplaces are
5 not included in this definition for solid fuel burning devices.

6 "Road" means any public or private road.

7 "Salvage Operation" means any business, trade or industry
8 engaged in whole or in part in salvaging or reclaiming any product
9 or material, including but not limited to metals, chemicals,
10 shipping containers or drums.

11 "Secondary Emissions" means emissions which would occur as a
12 result of the construction or operation of a major source or major
13 modification, but do not come from the major source or major
14 modification itself.

15 Secondary emissions must be specific, well defined,
16 quantifiable, and impact the same general area as the source or
17 modification which causes the secondary emissions. Secondary
18 emissions include emissions from any off-site support facility
19 which would not be constructed or increase its emissions except as
20 a result of the construction or operation of the major source or
21 major modification. Secondary emissions do not include any
22 emissions which come directly from a mobile source such as
23 emissions from the tailpipe of a motor vehicle, from a train, or
24 from a vessel.

25 Fugitive emissions and fugitive dust from the source or
26 modification are not considered secondary emissions.

27 "Significant" means:

28 (1) In reference to a net emissions increase or the
29 potential of a source to emit any of the following pollutants, a
30 rate of emissions that would equal or exceed any of the following
31 rates:

32 Carbon monoxide: 100 ton per year (tpy);

33 Nitrogen oxides: 40 tpy;

34 Sulfur dioxide: 40 tpy;

35 PM10: 15 tpy;

36 Particulate matter: 25 tpy;

37 Ozone: 40 tpy of volatile organic compounds;

38 Lead: 0.6 tpy.

39 "Solid Fuel" means wood, coal, and other similar organic
40 material or combination of these materials.

41 "Solvent" means organic materials which are liquid at
42 standard conditions (Standard Temperature and Pressure) and which
43 are used as solvers, viscosity reducers, or cleaning agents.

44 "Source" means any structure, building, facility, or
45 installation which emits or may emit any air pollutant subject to
46 regulation under the Clean Air Act and which is located on one or
47 more continuous or adjacent properties and which is under the
48 control of the same person or persons under common control. A
49 building, structure, facility, or installation means all of the
50 pollutant-emitting activities which belong to the same industrial
51 grouping. Pollutant-emitting activities shall be considered as

52 part of the same industrial grouping if they belong to the same
53 "Major Group" (i.e. which have the same two-digit code) as

1 described in the Standard Industrial Classification Manual, 1972,
2 as amended by the 1977 Supplement (US Government Printing Office
3 stock numbers 4101-0065 and 003-005-00176-0, respectively).

4 "Stack" means any point in a source designed to emit solids,
5 liquids, or gases into the air, including a pipe or duct but not
6 including flares.

7 "Standards of Performance for New Stationary Sources" means
8 the Federally established requirements for performance and record
9 keeping (Title 40 Code of Federal Regulations, Part 60).

10 "State" means Utah State.

11 "Temporary" means not more than 180 calendar days.

12 "Temporary Clean Coal Technology Demonstration Project" means
13 a clean coal technology demonstration project that is operated for
14 a period of 5 years or less, and which complies with the Utah
15 State Implementation Plan and other requirements necessary to
16 attain and maintain the national ambient air quality standards
17 during the project and after it is terminated.

18 "Threshold Limit Value - Ceiling (TLV-C)" means the airborne
19 concentration of a substance which may not be exceeded, as adopted
20 by the American Conference of Governmental Industrial Hygienists
21 in its "Threshold Limit Values for Chemical Substances and
22 Physical Agents and Biological Exposure Indices, (2009)."

23 "Threshold Limit Value - Time Weighted Average (TLV-TWA)"
24 means the time-weighted airborne concentration of a substance
25 adopted by the American Conference of Governmental Industrial
26 Hygienists in its "Threshold Limit Values for Chemical Substances
27 and Physical Agents and Biological Exposure Indices, (2009)."

28 "Total Suspended Particulate (TSP)" means minute separate
29 particles of matter, collected by high volume sampler.

30 "Toxic Screening Level" means an ambient concentration of an
31 air contaminant equal to a threshold limit value - ceiling (TLV-
32 C) or threshold limit value -time weighted average (TLV-TWA)
33 divided by a safety factor.

34 "Trash" means solids not considered to be highly flammable or
35 explosive including, but not limited to clothing, rags, leather,
36 plastic, rubber, floor coverings, excelsior, tree leaves, yard
37 trimmings and other similar materials.

38 "Volatile Organic Compound (VOC)" means VOC as defined in 40
39 CFR 51.100(s)(1), effective as of the date referenced in R307-101-
40 3, is hereby adopted and incorporated by reference.

41 "Waste" means all solid, liquid or gaseous material,
42 including, but not limited to, garbage, trash, household refuse,
43 construction or demolition debris, or other refuse including that
44 resulting from the prosecution of any business, trade or industry.

45 "Zero Drift" means the change in the instrument meter readout
46 over a stated period of time of normal continuous operation when
47 the VOC concentration at the time of measurement is zero.

48
49 **KEY: air pollution, definitions**

50 **Date of Enactment or Last Substantive Amendment: 2009**

51 **Notice of Continuation: February 8, 2008**

52 **Authorizing, and Implemented or Interpreted Law: 19-2-104(1)(a)**