



State of Utah

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Department of
Environmental Quality

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DIVISION OF AIR QUALITY
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DAQ-031-09

MEMORANDUM

TO: Air Quality Board

THROUGH: Cheryl Heying, Executive Secretary

FROM: Kimberly Kreykes, Environmental Planning Consultant

DATE: June 3, 2009

SUBJECT: Five-Year Review: R307-101. General Requirements

DAQ has completed a five-year review for R307-101, General Requirements. R307-101 has been amended twice since the last five-year review (DAR No. 32351 and DAR No. 32458). No comments were received on either amendment, nor have any other comments been received since the last five-year review. The DAR No. 32351 rule change updated the version of Code of Federal Regulations in R307-101-3, to July 1, 2008. The DAR No. 32458 rule change updated the version of Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices referenced in several definitions in R307-101-2, to 2009.

Section R307-101-2 includes all the definitions that apply throughout all the rules contained in R307. Without them, the remaining rules would be unenforceable, so this rule should be continued. In addition, R307-101 is also a component of Utah's State Implementation Plan, which has been federally approved.

Staff Recommendation: DAQ staff recommends that the Board continue this rule by approving the attached forms to be filed with the Division of Administrative Rules (DAR).

1 **R307. Environmental Quality, Air Quality.**

2 **R307-101. General Requirements.**

3 **R307-101-1. Foreword.**

4 Chapter 19-2 and the rules adopted by the Air Quality Board
5 constitute the basis for control of air pollution sources in the
6 state. These rules apply and will be enforced throughout the
7 state, and are recommended for adoption in local jurisdictions
8 where environmental specialists are available to cooperate in
9 implementing rule requirements.

10 National Ambient Air Quality Standards (NAAQS), National
11 Standards of Performance for New Stationary Sources (NSPS),
12 National Prevention of Significant Deterioration of Air Quality
13 (PSD) standards, and the National Emission Standards for Hazardous
14 Air Pollutants (NESHAPS) apply throughout the nation and are
15 legally enforceable in Utah.

16

17 **R307-101-2. Definitions.**

18 Except where specified in individual rules, definitions in
19 R307-101-2 are applicable to all rules adopted by the Air Quality
20 Board.

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

23 (1) In general, actual emissions as of a particular date
24 shall equal the average rate, in tons per year, at which the unit
25 actually emitted the pollutant during a two-year period which
26 precedes the particular date and which is representative of normal
27 source operations. The Executive Secretary shall allow the use of
28 a different time period upon a determination that it is more
29 representative of normal source operation. Actual emissions shall
30 be calculated using the unit's actual operating hours, production
31 rates, and types of materials processed, stored, or combusted
32 during the selected time period.

33 (2) The Executive Secretary may presume that source-specific
34 allowable emissions for the unit are equivalent to the actual
35 emissions of the unit.

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

40 (4) For an electric utility steam generating unit (other
41 than a new unit or the replacement of an existing unit) actual
42 emissions of the unit following the physical or operational change
43 shall equal the representative actual annual emissions of the
44 unit, provided the source owner or operator maintains and submits
45 to the executive secretary, on an annual basis for a period of 5
46 years from the date the unit resumes regular operation,
47 information demonstrating that the physical or operational change
48 did not result in an emissions increase. A longer period, not to
49 exceed 10 years, may be required by the executive secretary if the
50 executive secretary determines such a period to be more
51 representative of normal source post-change operations.

52 "Acute Hazardous Air Pollutant" means any noncarcinogenic
53 hazardous air pollutant for which a threshold limit value -

1 ceiling (TLV-C) has been adopted by the American Conference of
2 Governmental Industrial Hygienists (ACGIH) in its "Threshold Limit
3 Values for Chemical Substances and Physical Agents and Biological
4 Exposure Indices, (2009)."

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

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

11 "Air Pollution" means the presence in the ambient air of one
12 or more air contaminants in such quantities and duration and under
13 conditions and circumstances, as is or tends to be injurious to
14 human health or welfare, animal or plant life, or property, or
15 would unreasonably interfere with the enjoyment of life or use of
16 property as determined by the standards, rules and regulations
17 adopted by the Air Quality Board (Section 19-2-104).

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

23 "Ambient Air" means the surrounding or outside air (Section
24 19-2-102(4)).

25 "Appropriate Authority" means the governing body of any city,
26 town or county.

27 "Atmosphere" means the air that envelops or surrounds the
28 earth and includes all space outside of buildings, stacks or
29 exterior ducts.

30 "Authorized Local Authority" means a city, county, city-
31 county or district health department; a city, county or
32 combination fire department; or other local agency duly designated
33 by appropriate authority, with approval of the state Department of
34 Health; and other lawfully adopted ordinances, codes or
35 regulations not in conflict therewith.

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

37 "Breakdown" means any malfunction or procedural error, to
38 include but not limited to any malfunction or procedural error
39 during start-up and shutdown, which will result in the
40 inoperability or sudden loss of performance of the control
41 equipment or process equipment causing emissions in excess of
42 those allowed by approval order or Title R307.

43 "BTU" means British Thermal Unit, the quantity of heat
44 necessary to raise the temperature of one pound of water one
45 degree Fahrenheit.

46 "Calibration Drift" means the change in the instrument meter
47 readout over a stated period of time of normal continuous
48 operation when the VOC concentration at the time of measurement is
49 the same known upscale value.

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

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

7 "Chargeable Pollutant" means any regulated air pollutant
8 except the following:

9 (1) Carbon monoxide;

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

14 (3) Any pollutant that is a regulated air pollutant solely
15 because it is subject to a standard or regulation under Section
16 112(r) of the Act, Prevention of Accidental Releases.

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

24 "Clean Air Act" means federal Clean Air Act as amended in
25 1990.

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

33 "Clean Coal Technology Demonstration Project" means a project
34 using funds appropriated under the heading "Department of Energy-
35 Clean Coal Technology," up to a total amount of \$2,500,000,000 for
36 commercial demonstration of clean coal technology, or similar
37 projects funded through appropriations for the Environmental
38 Protection Agency. The Federal contribution for a qualifying
39 project shall be at least 20 percent of the total cost of the
40 demonstration project.

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

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

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

50 (2) Entered into binding agreements or contractual
51 obligations, which cannot be canceled or modified without
52 substantial loss to the owner or operator, to undertake a program
53 of actual construction of the source to be completed within a

1 reasonable time.

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

4 "Construction" means any physical change or change in the
5 method of operation including fabrication, erection, installation,
6 demolition, or modification of a source which would result in a
7 change in actual emissions.

8 "Control Apparatus" means any device which prevents or
9 controls the emission of any air contaminant directly or
10 indirectly into the outdoor atmosphere.

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

13 "Electric Utility Steam Generating Unit" means any steam
14 electric generating unit that is constructed for the purpose of
15 supplying more than one-third of its potential electric output
16 capacity and more than 25 MW electrical output to any utility
17 power distribution system for sale. Any steam supplied to a steam
18 distribution system for the purpose of providing steam to a steam-
19 electric generator that would produce electrical energy for sale
20 is also considered in determining the electrical energy output
21 capacity of the affected facility.

22 "Emission" means the act of discharge into the atmosphere of
23 an air contaminant or an effluent which contains or may contain an
24 air contaminant; or the effluent so discharged into the
25 atmosphere.

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

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

32 (2) Information necessary to determine the identity, amount,
33 frequency, concentration, or other characteristics (to the extent
34 related to air quality) of any air contaminant which, under an
35 applicable standard or limitation, the source operation was
36 authorized to emit (including, to the extent necessary for such
37 purposes, a description of the manner or rate of operation of the
38 source operation), or any combination of the foregoing; and

39 (3) A general description of the location and/or nature of
40 the source operation to the extent necessary to identify the
41 source operation and to distinguish it from other source
42 operations (including, to the extent necessary for such purposes,
43 a description of the device, installation, or operation
44 constituting the source operation).

45 "Emission Limitation" means a requirement established by the
46 Board or the Administrator, EPA, which limits the quantity, rate
47 or concentration of emission of air pollutants on a continuous
48 emission reduction including any requirement relating to the
49 operation or maintenance of a source to assure continuous emission
50 reduction (Section 302(k)).

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

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

6 "EPA" means Environmental Protection Agency.

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

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

13 "Executive Secretary" means the Executive Secretary of the
14 Board.

15 "Existing Installation" means an installation, construction
16 of which began prior to the effective date of any regulation
17 having application to it.

18 "Facility" means machinery, equipment, structures of any part
19 or accessories thereof, installed or acquired for the primary
20 purpose of controlling or disposing of air pollution. It does not
21 include an air conditioner, fan or other similar device for the
22 comfort of personnel.

23 "Fireplace" means all devices both masonry or factory built
24 units (free standing fireplaces) with a hearth, fire chamber or
25 similarly prepared device connected to a chimney which provides
26 the operator with little control of combustion air, leaving its
27 fire chamber fully or at least partially open to the room.
28 Fireplaces include those devices with circulating systems, heat
29 exchangers, or draft reducing doors with a net thermal efficiency
30 of no greater than twenty percent and are used for aesthetic
31 purposes.

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

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

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

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

47 "Hazardous Air Pollutant (HAP)" means any pollutant listed by
48 the EPA as a hazardous air pollutant in conformance with Section
49 112(b) of the Clean Air Act. A list of these pollutants is
50 available at the Division of Air Quality.

51 "Household Waste" means any solid or liquid material normally
52 generated by the family in a residence in the course of ordinary
53 day-to-day living, including but not limited to garbage, paper

1 products, rags, leaves and garden trash.

2 "Incinerator" means a combustion apparatus designed for high
3 temperature operation in which solid, semisolid, liquid, or
4 gaseous combustible wastes are ignited and burned efficiently and
5 from which the solid and gaseous residues contain little or no
6 combustible material.

7 "Installation" means a discrete process with identifiable
8 emissions which may be part of a larger industrial plant.
9 Pollution equipment shall not be considered a separate
10 installation or installations.

11 "LPG" means liquified petroleum gas such as propane or
12 butane.

13 "Maintenance Area" means an area that is subject to the
14 provisions of a maintenance plan that is included in the Utah
15 state implementation plan, and that has been redesignated by EPA
16 from nonattainment to attainment of any National Ambient Air
17 Quality Standard.

18 (a) The following areas are considered maintenance areas for
19 ozone:

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

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

22 (b) The following areas are considered maintenance areas for
23 carbon monoxide:

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

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

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

27 (c) The following areas are considered maintenance areas for
28 PM10:

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

32 (ii) Utah County, effective on the date that EPA approves
33 the maintenance plan that was adopted by the Board on July 6,
34 2005; and

35 (iii) Ogden City, effective on the date that EPA approves
36 the maintenance plan that was adopted by the Board on July 6,
37 2005.

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

43 "Major Modification" means any physical change in or change
44 in the method of operation of a major source that would result in
45 a significant net emissions increase of any pollutant. A net
46 emissions increase that is significant for volatile organic
47 compounds shall be considered significant for ozone. Within Salt
48 Lake and Davis Counties or any nonattainment area for ozone, a net
49 emissions increase that is significant for nitrogen oxides shall
50 be considered significant for ozone. Within areas of
51 nonattainment for PM10, a significant net emission increase for
52 any PM10 precursor is also a significant net emission increase for
53 PM10. A physical change or change in the method of operation

1 shall not include:

2 (1) routine maintenance, repair and replacement;

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

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

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

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

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

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

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

19 (7) any change in ownership at a source

20 (8) the addition, replacement or use of a pollution control
21 project at an existing electric utility steam generating unit,
22 unless the executive secretary determines that such addition,
23 replacement, or use renders the unit less environmentally
24 beneficial, or except:

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

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

34 (9) the installation, operation, cessation, or removal of a
35 temporary clean coal technology demonstration project, provided
36 that the project complies with:

37 (a) the Utah State Implementation Plan; and

38 (b) other requirements necessary to attain and maintain the
39 national ambient air quality standards during the project and
40 after it is terminated.

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

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

46 (a) any source located in a nonattainment area for carbon
47 monoxide which emits, or has the potential to emit, carbon
48 monoxide in the amounts outlined in Section 187 of the federal
49 Clean Air Act with respect to the severity of the nonattainment
50 area as outlined in Section 187 of the federal Clean Air Act; or

51 (b) any source located in Salt Lake or Davis Counties or in
52 a nonattainment area for ozone which emits, or has the potential
53 to emit, VOC or nitrogen oxides in the amounts outlined in Section

1 182 of the federal Clean Air Act with respect to the severity of
2 the nonattainment area as outlined in Section 182 of the federal
3 Clean Air Act; or

4 (c) any source located in a nonattainment area for PM10
5 which emits, or has the potential to emit, PM10 or any PM10
6 precursor in the amounts outlined in Section 189 of the federal
7 Clean Air Act with respect to the severity of the nonattainment
8 area as outlined in Section 189 of the federal Clean Air Act.

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

12 (3) the fugitive emissions and fugitive dust of a stationary
13 source shall not be included in determining for any of the
14 purposes of these R307 rules whether it is a major stationary
15 source, unless the source belongs to one of the following
16 categories of stationary sources:

17 (a) Coal cleaning plants (with thermal dryers);

18 (b) Kraft pulp mills;

19 (c) Portland cement plants;

20 (d) Primary zinc smelters;

21 (e) Iron and steel mills;

22 (f) Primary aluminum or reduction plants;

23 (g) Primary copper smelters;

24 (h) Municipal incinerators capable of charging more than 250
25 tons of refuse per day;

26 (i) Hydrofluoric, sulfuric, or nitric acid plants;

27 (j) Petroleum refineries;

28 (k) Lime plants;

29 (l) Phosphate rock processing plants;

30 (m) Coke oven batteries;

31 (n) Sulfur recovery plants;

32 (o) Carbon black plants (furnace process);

33 (p) Primary lead smelters;

34 (q) Fuel conversion plants;

35 (r) Sintering plants;

36 (s) Secondary metal production plants;

37 (t) Chemical process plants;

38 (u) Fossil-fuel boilers (or combination thereof) totaling
39 more than 250 million British Thermal Units per hour heat input;

40 (v) Petroleum storage and transfer units with a total
41 storage capacity exceeding 300,000 barrels;

42 (w) Taconite ore processing plants;

43 (x) Glass fiber processing plants;

44 (y) Charcoal production plants;

45 (z) Fossil fuel-fired steam electric plants of more than 250
46 million British Thermal Units per hour heat input;

47 (aa) Any other stationary source category which, as of
48 August 7, 1980, is being regulated under section 111 or 112 of the
49 federal Clean Air Act.

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

52 "National Ambient Air Quality Standards (NAAQS)" means the
53 allowable concentrations of air pollutants in the ambient air

1 specified by the Federal Government (Title 40, Code of Federal
2 Regulations, Part 50).

3 "Net Emissions Increase" means the amount by which the sum of
4 the following exceeds zero:

5 (1) any increase in actual emissions from a particular
6 physical change or change in method of operation at a source; and

7 (2) any other increases and decreases in actual emissions at
8 the source that are contemporaneous with the particular change and
9 are otherwise creditable. For purposes of determining a "net
10 emissions increase":

11 (a) An increase or decrease in actual emissions is
12 contemporaneous with the increase from the particular change only
13 if it occurs between the date five years before construction on
14 the particular change commences; and the date that the increase
15 from the particular change occurs.

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

20 (c) An increase or decrease in actual emission of sulfur
21 dioxide, nitrogen oxides or particulate matter which occurs before
22 an applicable minor source baseline date is creditable only if it
23 is required to be considered in calculating the amount of maximum
24 allowable increases remaining available. With respect to
25 particulate matter, only PM10 emissions will be used to evaluate
26 this increase or decrease.

27 (d) An increase in actual emissions is creditable only to
28 the extent that the new level of actual emissions exceeds the old
29 level.

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

32 (i) The old level of actual emissions or the old level of
33 allowable emissions, whichever is lower, exceeds the new level of
34 actual emissions;

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

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

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

43 (f) An increase that results from a physical change at a
44 source occurs when the emissions unit on which construction
45 occurred becomes operational and begins to emit a particular
46 pollutant. Any replacement unit that requires shakedown becomes
47 operational only after a reasonable shakedown period, not to
48 exceed 180 days.

49 "New Installation" means an installation, construction of
50 which began after the effective date of any regulation having
51 application to it.

52 "Nonattainment Area" means an area designated by the
53 Environmental Protection Agency as nonattainment under Section

1 107, Clean Air Act for any National Ambient Air Quality Standard.
2 The designations for Utah are listed in 40 CFR 81.345.

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

6 "Opacity" means the capacity to obstruct the transmission of
7 light, expressed as percent.

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

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

14 "PSD" Area means an area designated as attainment or
15 unclassifiable under section 107(d)(1)(D) or (E) of the federal
16 Clean Air Act.

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

20 "PM10 Precursor" means any chemical compound or substance
21 which, after it has been emitted into the atmosphere, undergoes
22 chemical or physical changes that convert it into particulate
23 matter, specifically PM10.

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

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

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

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

38 (2) An activity or project to accommodate switching to a
39 fuel which is less polluting than the fuel used prior to the
40 activity or project, including, but not limited to natural gas or
41 coal reburning, or the cofiring of natural gas and other fuels for
42 the purpose of controlling emissions;

43 (3) A permanent clean coal technology demonstration project
44 conducted under Title II, sec. 101(d) of the Further Continuing
45 Appropriations Act of 1985 (sec. 5903(d) of title 42 of the United
46 States Code), or subsequent appropriations, up to a total amount
47 of \$2,500,000,000 for commercial demonstration of clean coal
48 technology, or similar projects funded through appropriations for
49 the Environmental Protection Agency; or

50 (4) A permanent clean coal technology demonstration project
51 that constitutes a repowering project.

52 "Potential to Emit" means the maximum capacity of a source to
53 emit a pollutant under its physical and operational design. Any

1 physical or operational limitation on the capacity of the source
2 to emit a pollutant including air pollution control equipment and
3 restrictions on hours of operation or on the type or amount of
4 material combusted, stored, or processed shall be treated as part
5 of its design if the limitation or the effect it would have on
6 emissions is enforceable. Secondary emissions do not count in
7 determining the potential to emit of a stationary source.

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

10 "Process Rate" means the quantity per unit of time of any raw
11 material or process intermediate consumed, or product generated,
12 through the use of any equipment, source operation, or control
13 apparatus. For a stationary internal combustion unit or any other
14 fuel burning equipment, this term may be expressed as the quantity
15 of fuel burned per unit of time.

16 "Reactivation of a Very Clean Coal-Fired Electric Utility
17 Steam Generating Unit" means any physical change or change in the
18 method of operation associated with the commencement of commercial
19 operations by a coal-fired utility unit after a period of
20 discontinued operation where the unit:

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

25 (2) Was equipped prior to shutdown with a continuous system
26 of emissions control that achieves a removal efficiency for sulfur
27 dioxide of no less than 85 percent and a removal efficiency for
28 particulates of no less than 98 percent;

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

31 (4) Is otherwise in compliance with the requirements of the
32 Clean Air Act.

33 "Reasonable Further Progress" means annual incremental
34 reductions in emission of an air pollutant which are sufficient to
35 provide for attainment of the NAAQS by the date identified in the
36 State Implementation Plan.

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

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

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

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

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

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

48 (e) Any pollutant subject to a standard promulgated under
49 Section 112, Hazardous Air Pollutants, or other requirements
50 established under Section 112 of the Act, including Sections
51 112(g), (j), and (r) of the Act, including any of the following:

52 (i) Any pollutant subject to requirements under Section
53 112(j) of the Act, Equivalent Emission Limitation by Permit. If

1 the Administrator fails to promulgate a standard by the date
2 established pursuant to Section 112(e) of the Act, any pollutant
3 for which a subject source would be major shall be considered to
4 be regulated on the date 18 months after the applicable date
5 established pursuant to Section 112(e) of the Act;

6 (ii) Any pollutant for which the requirements of Section
7 112(g)(2) of the Act (Construction, Reconstruction and
8 Modification) have been met, but only with respect to the
9 individual source subject to Section 112(g)(2) requirement.

10 "Repowering" means replacement of an existing coal-fired
11 boiler with one of the following clean coal technologies:
12 atmospheric or pressurized fluidized bed combustion, integrated
13 gasification combined cycle, magnetohydrodynamics, direct and
14 indirect coal-fired turbines, integrated gasification fuel cells,
15 or as determined by the Administrator, in consultation with the
16 Secretary of Energy, a derivative of one or more of these
17 technologies, and any other technology capable of controlling
18 multiple combustion emissions simultaneously with improved boiler
19 or generation efficiency and with significantly greater waste
20 reduction relative to the performance of technology in widespread
21 commercial use as of November 15, 1990.

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

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

29 "Representative Actual Annual Emissions" means the average
30 rate, in tons per year, at which the source is projected to emit a
31 pollutant for the two-year period after a physical change or
32 change in the method of operation of unit, (or a different
33 consecutive two-year period within 10 years after that change,
34 where the executive secretary determines that such period is more
35 representative of source operations), considering the effect any
36 such change will have on increasing or decreasing the hourly
37 emissions rate and on projected capacity utilization. In
38 projecting future emissions the executive secretary shall:

39 (1) Consider all relevant information, including but not
40 limited to, historical operational data, the company's own
41 representations, filings with the State or Federal regulatory
42 authorities, and compliance plans under title IV of the Clean Air
43 Act; and

44 (2) Exclude, in calculating any increase in emissions that
45 results from the particular physical change or change in the
46 method of operation at an electric utility steam generating unit,
47 that portion of the unit's emissions following the change that
48 could have been accommodated during the representative baseline
49 period and is attributable to an increase in projected capacity
50 utilization at the unit that is unrelated to the particular
51 change, including any increased utilization due to the rate of
52 electricity demand growth for the utility system as a whole.

53 "Residence" means a dwelling in which people live, including

1 all ancillary buildings.

2 "Residential Solid Fuel Burning" device means any residential
3 burning device except a fireplace connected to a chimney that
4 burns solid fuel and is capable of, and intended for use as a
5 space heater, domestic water heater, or indoor cooking appliance,
6 and has an air-to-fuel ratio less than 35-to-1 as determined by
7 the test procedures prescribed in 40 CFR 60.534. It must also
8 have a useable firebox volume of less than 6.10 cubic meters or 20
9 cubic feet, a minimum burn rate less than 5 kilograms per hour or
10 11 pounds per hour as determined by test procedures prescribed in
11 40 CFR 60.534, and weigh less than 800 kilograms or 362.9 pounds.

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

17 "Road" means any public or private road.

18 "Salvage Operation" means any business, trade or industry
19 engaged in whole or in part in salvaging or reclaiming any product
20 or material, including but not limited to metals, chemicals,
21 shipping containers or drums.

22 "Secondary Emissions" means emissions which would occur as a
23 result of the construction or operation of a major source or major
24 modification, but do not come from the major source or major
25 modification itself.

26 Secondary emissions must be specific, well defined,
27 quantifiable, and impact the same general area as the source or
28 modification which causes the secondary emissions. Secondary
29 emissions include emissions from any off-site support facility
30 which would not be constructed or increase its emissions except as
31 a result of the construction or operation of the major source or
32 major modification. Secondary emissions do not include any
33 emissions which come directly from a mobile source such as
34 emissions from the tailpipe of a motor vehicle, from a train, or
35 from a vessel.

36 Fugitive emissions and fugitive dust from the source or
37 modification are not considered secondary emissions.

38 "Significant" means:

39 (1) In reference to a net emissions increase or the
40 potential of a source to emit any of the following pollutants, a
41 rate of emissions that would equal or exceed any of the following
42 rates:

43 Carbon monoxide: 100 ton per year (tpy);
44 Nitrogen oxides: 40 tpy;
45 Sulfur dioxide: 40 tpy;
46 PM10: 15 tpy;
47 Particulate matter: 25 tpy;
48 Ozone: 40 tpy of volatile organic compounds;
49 Lead: 0.6 tpy.

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

52 "Solvent" means organic materials which are liquid at
53 standard conditions (Standard Temperature and Pressure) and which

1 are used as dissolvers, viscosity reducers, or cleaning agents.

2 "Source" means any structure, building, facility, or
3 installation which emits or may emit any air pollutant subject to
4 regulation under the Clean Air Act and which is located on one or
5 more continuous or adjacent properties and which is under the
6 control of the same person or persons under common control. A
7 building, structure, facility, or installation means all of the
8 pollutant-emitting activities which belong to the same industrial
9 grouping. Pollutant-emitting activities shall be considered as
10 part of the same industrial grouping if they belong to the same
11 "Major Group" (i.e. which have the same two-digit code) as
12 described in the Standard Industrial Classification Manual, 1972,
13 as amended by the 1977 Supplement (US Government Printing Office
14 stock numbers 4101-0065 and 003-005-00176-0, respectively).

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

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

21 "State" means Utah State.

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

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

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

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

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

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

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

49 "Volatile Organic Compound (VOC)" means VOC as defined in 40
50 CFR 51.100(s)(1), effective as of the date referenced in R307-101-
51 3, is hereby adopted and incorporated by reference.

52 "Waste" means all solid, liquid or gaseous material,
53 including, but not limited to, garbage, trash, household refuse,

1 construction or demolition debris, or other refuse including that
2 resulting from the prosecution of any business, trade or industry.

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

6
7 **R307-101-3. Version of Code of Federal Regulations Incorporated**
8 **by Reference.**

9 Except as specifically identified in an individual rule, the
10 version of the Code of Federal Regulations (CFR) incorporated
11 throughout R307 is dated July 1, 2008.

12
13 **KEY: air pollution, definitions**
14 **Date of Enactment or Last Substantive Amendment: 2009**
15 **Notice of Continuation: February 8, 2008**
16 **Authorizing, and Implemented or Interpreted Law: 19-2-104(1)(a)**

State of Utah

**FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF
CONTINUATION**

DAR file no:

Date filed:

Utah Admin.

R307-101

Time filed:

Code ref. (R no.):

1. Agency:

Environmental Quality/Air Quality

Room no.:

Building:

Street address 1: 150 N 1950 W

Street address 2:

City,state,zip: SALT LAKE CITY, UT 84116-3085

Mailing address 1: PO BOX 144820

Mailing address 2:

City,state,zip: SALT LAKE CITY, UT 84114-4820

Contact person(s):**Name:****Phone:****Fax:****E-mail:****Remove:**

Kimberly Kreykes

801-536-4042

801-536-4099

kkreykes@utah.gov

(Interested persons may inspect this filing at the above address or at DAR between 8:00 a.m. and 5:00 p.m. on business days.)

2. Title of rule or section (catchline):

General Requirements

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:

Subsection 19-2-104(1)(a) authorizes the Air Quality Board to make rules "...regarding the control, abatement, and prevention of air pollution from all sources..." Rule R307-101 includes definitions used throughout all the rules contained in R307 that are written under Section 19-2-104. Without these definitions, the remaining rules would be unenforceable.

4. A summary of written comments received during and since the last five-year

review of the rule from interested persons supporting or opposing the rule: R307-101 was amended twice since the last five-year review. No comments were received on either amendment (DAR No. 32351 and DAR No. 32458), nor have any other comments been received since the last five-year review.

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:

Section R307-101-2 includes all the definitions that apply throughout all the rules contained in R307. Without them, the remaining rules would be unenforceable, so this rule should be continued. In addition, R307-101 is also a component of Utah's State Implementation Plan, which has been federally approved.

6. Indexing information - keywords (maximum of four, in lower case):

air pollution, definitions

7. Attach an RTF document containing the text of this rule change (filename):

No document is associated with this filing.

To the agency: Information requested on this form is required by Section 63-46a-9. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

AGENCY AUTHORIZATION

Agency head or designee, and title:	Date (mm/dd/yyyy):
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Non Printable