

GLI Toxics Task Force

Proposed Revisions

to

Version 2

of the

STAR Program

(Clean Version)

GLI Air Toxics Task Force Proposal
January 24, 2005

1 **REGULATION 1.02 Definitions**

2 **Air Pollution Control District of Jefferson County**
3 **Jefferson County, Kentucky**

4 **Relates To:** KRS Chapter 77 Air Pollution Control

5 **Pursuant To:** KRS Chapter 77 Air Pollution Control

6 **Necessity and Function:** KRS 77.180 authorizes the Air Pollution Control Board to adopt and
7 enforce all orders, rules, and regulations necessary or proper to accomplish the purposes of KRS
8 Chapter 77. This regulation contains certain definitions used throughout District regulations.

9 **SECTION 1 Definitions**

10 As used in these regulations, the following terms shall have the meaning given to them in this
11 section except as otherwise specified in these regulations. All terms not defined in these
12 regulations shall have the meaning given to them in KRS 77.005, the Act, or by commonly
13 accepted usage.

14 1.1 "Act" means the Clean Air Act (42 U.S.C. §§7401 *et seq.*) which consists of the Clean
15 Air Act of 1963 and all of the amendments made by subsequent enactments, the most
16 recent major amendment being the Clean Air Act Amendments of 1990 (P.L. 101-549).

17 1.2 "Acute noncancer effect" means a biochemical change, functional impairment, or
18 pathological lesion that affects the performance of the whole organism, or reduces an
19 organism's ability to respond to an additional environmental challenge that is produced
20 within a short period of time following an exposure.

21 1.3 "Affected facility" means a process or process equipment to which a regulation is
22 applicable.

23 1.4 "Air contaminant" or "air pollutant" means smoke, charred paper, dust, soot, grime,
24 carbon, noxious acids, fumes, gases, odors, or particulate matter, or any combination of
25 these, that is emitted into or otherwise enters the outside air. These terms also include
26 any precursors to the formation of an air contaminant or air pollutant.

27 1.5 "Air pollution control equipment" means equipment that may be required by law or
28 regulation for the control of air pollution but is not vital to production of the normal
29 product of the process or process equipment or to its normal operation.

30 1.6 "Alternative method" means any method of sampling and analyzing for an air pollutant
31 that is not a reference method or an equivalent method but that has been demonstrated to
32 the satisfaction of the EPA and the District to produce, in specific cases, results adequate
33 for determining compliance.

34 1.7 "Ambient air" means that portion of the atmosphere, external to buildings, to which the
35 general public has access.

36 1.8 "Ambient air quality standard" means a numerical expression of the level of an air
37 contaminant required to be achieved and maintained through the application of
38 appropriate preventive or control measures. An "ambient air quality standard" consists of
39 two parts:

40 1.8.1 A specified concentration for a particular air contaminant and

41 1.8.2 A time-averaging interval over which that concentration is measured.

42 1.9 "Annual mean" means an average determined on the basis of any consecutive 12-month
interval.

- 14 1.10 “Asbestos” means the asbestiform varieties of serpentine (chrysotile), riebeckite
5 (crocidolite), cummingtonite-grunerite, amosite, anthophyllite, and actinolite-tremolite.
- 46 1.11 “Asbestos mill” means any process or process equipment engaged in converting, or in
47 any intermediate step in converting, asbestos ore into commercial asbestos. Outside
48 storage of asbestos materials is not considered a part of the asbestos mill.
- 49 1.12 “Asbestos material” means asbestos or any material containing asbestos.
- 50 1.13 “Asbestos tailings” means any solid waste that contains asbestos and is a product of
51 asbestos mining or milling operations.
- 52 1.14 “Best available control technology” (BACT) means an emission limitation, including a
53 visible emission standard, based on the maximum degree of reduction for each pollutant
54 subject to regulation that would be emitted from any proposed new or modified process
55 or process equipment that the District, on a case-by-case basis, taking into account
56 energy, environmental, and economic impacts and other costs, determines is achievable
57 for that new or modified process or process equipment through the application of
58 production processes or available methods, systems, and techniques, including fuel
59 cleaning or treatment, innovative fuel combustion techniques, and pollution prevention
60 approaches, for elimination, reduction, or control of that pollutant. In no event shall the
61 application of best available control technology result in emissions of any pollutant that
62 would exceed the emissions allowed by any applicable standard under Regulation 5, 6, or
63 7. If the District determines that technological or economic limitations on the application
64 of measurement methodology to a particular process or process equipment would make
65 the imposition of an emissions standard infeasible, a design, equipment, work practice, or
66 operational standard, or combination of those approaches, may be prescribed instead.
- 68 1.15 “Board” means the Air Pollution Control Board of Jefferson County as provided for in
69 KRS Chapter 77.
- 70 1.16 “Bypass” means the intentional diversion of air contaminants from air pollution control
71 equipment or process equipment that normally reduces the emission of the air
72 contaminants.
- 73 1.17 “Cabinet” means the Environmental and Public Protection Cabinet of the Commonwealth
74 of Kentucky as provided for in KRS Chapter 224.
- 75 1.18 “Cancer” means any one of a group of diseases that occur when cells in the body become
76 abnormal and grow or multiply out of control.
- 77 1.19 “Cancer risk” means a theoretical risk for getting cancer if exposed to a substance every
78 day for 70 years (a lifetime exposure). The true risk might be lower.
- 79 1.20 “Carcinogen” means a substance that causes cancer.
- 80 1.21 “Chronic noncancer effect” means a biochemical change, functional impairment, or
81 pathological lesion that affects the performance of the whole organism, or reduces an
82 organism’s ability to respond to an additional environmental challenge that occurs as a
83 result of repeated or long term exposures.
- 84 1.22 “Commence” means that an owner or operator has obtained all necessary preconstruction
85 approvals or permits and has either:
- 86 1.22.1 Begun, or caused to begin, a continuous program of actual on-site construction or
87 modification, to be completed within a reasonable time, or
- 88 1.22.2 Entered into a binding agreement or a contractual obligation, that cannot be canceled
or modified without substantial loss to the owner or operator, to undertake a

89 continuous program of actual on-site construction or modification, to be
90 completed within a reasonable time.

- 91 1.23 “Commercial asbestos” means any asbestos that is extracted from asbestos ore.
- 92 1.24 “Compliance plan and schedule” means a list of remedial measures including an
93 enforceable sequence and timing of actions or operations leading to compliance with a
94 limitation or standard by a specific date.
- 95 1.25 “Construction” means fabrication, erection, modification, or installation of an affected
96 facility or any portion of an affected facility.
- 97 1.26 “Demolition” means the wrecking or taking out of any load-supporting structural member
98 of a structure together with any related handling operations.
- 99 1.27 “District” means the Air Pollution Control District of Jefferson County as provided for in
100 KRS Chapter 77.
- 101 1.28 “District-only enforceable” means that the limitation or condition is derived solely from
102 the District’s air pollution control regulations and is not federally or state enforceable.
- 103 1.29 “Division” means the Division for Air Quality of the Environmental and Public
104 Protection Cabinet of the Commonwealth of Kentucky as provided for in KRS Chapter
105 224.
- 106 1.30 “Emission standard” means a legally enforceable requirement that limits the quantity,
107 rate, or concentration of emissions of air contaminants into the ambient air on a
108 continuous basis, including any requirement related to the operation or maintenance of a
109 process or process equipment to assure continuous emission reduction, and any required
110 design, equipment, work practice, or operational standard.
- 111 1.31 “Equivalent method” means any method of sampling and analyzing for an air pollutant
112 that has been demonstrated to the satisfaction of the EPA to have a consistent and
113 quantitatively-known relationship to the reference method under specified conditions.
- 114 1.32 “Excess emissions” means emissions that exceed an applicable emission standard. 1.33
115 “Existing affected facility”, except as otherwise specified under applicable
116 regulations, means any affected facility that is in existence or has commenced
117 construction before the effective date of the applicable emission standard and that has not
118 been subsequently modified or reconstructed.
- 119 1.34 “Federally Enforceable District Origin Operating Permit” (FEDOOP) means a non-Title
120 V operating permit issued by the District that contains a federally-enforceable permit
121 condition, limit, or provision.
- 122 1.35 “Fixed capital cost” means the capital needed to provide all of the depreciable
123 components.
- 124 1.36 “Fuel” means natural gas, petroleum, coal, wood, and any other form of solid, liquid, or
125 gaseous matter consumed for the purpose of creating useful heat.
- 126 1.37 “Fugitive emissions” means those emissions that could not reasonably pass through a
127 stack, chimney, vent, or other functionally equivalent opening.
- 128 1.38 “Hazardous air pollutant” (HAP) means any air pollutant listed in Regulation 5.14
129 *Hazardous Air Pollutants and Source Categories* Section 2 pursuant to the Act §112(b).
- 130 1.39 “Incineration” means the process of igniting and burning solid, semi-solid, liquid, or
131 gaseous combustible or partially combustible wastes.
- 132 1.40 “Incinerator” means any furnace used in the process of burning waste for the purpose of
133 reducing the volume of waste by removing combustible matter.

- 134 1.41 “Lowest achievable emission rate” (LAER) means, for any affected facility, that rate of
135 emissions based on the more stringent of the following:
- 136 1.42.1 The most stringent emission limitation that is contained in the implementation plan of
137 any State for that class or category of affected facility, unless the owner or
138 operator of the proposed affected facility demonstrates that this limitation is not
139 achievable, or
- 140 1.43.2 The most stringent emission limitation that is achieved in practice by that class or
141 category of affected facility taking into consideration the pollutant that must be
142 controlled. In no event shall the application of lowest achievable emission rate
143 permit a proposed affected facility to emit any pollutant in excess of the amount
144 allowable under applicable new source standards pursuant to Regulations 5, 6, or
145 7 or 40 CFR parts 60, 61, or 63.
- 146 1.44 “Major source”, except as specified in another regulation for use in that regulation, means
147 any stationary source that emits, or has the potential to emit, 100 tons per year or more of
148 any air pollutant subject to regulation under the Act, 10 tons or more of an individual
149 hazardous air pollutant (HAP), or 25 tons per year or more of a combination of HAPs.
- 150 1.45 “Malfunction” means a failure of air pollution control equipment, process equipment, or a
151 process to operate in a normal or usual manner that results in an exceedance of an
152 applicable emission standard and that is not caused entirely or in part by poor
153 maintenance, careless operation, or other preventable upset condition or preventable
154 equipment breakdown.”
- 155 1.46 “Maximum achievable control technology” (MACT) means the maximum achievable
156 control technology defined in the Act §112 (d)(3).
- 157 1.47 “Modification”, except as specified in another regulation for use in that regulation, means
158 any physical change in, or change in the method of operation of, an affected facility that
159 increases the amount of any air pollutant (to which an emission standard applies) emitted
160 by that affected facility or that results in the emission of any air pollutant (to which an
161 emission standard applies) not previously emitted, except that:
- 162 1.47.1 Routine maintenance, repair, and replacement shall not be considered a physical
163 change, and
- 164 1.47.2 A change in the method of operation, unless previously limited by permit conditions,
165 shall not include:
- 166 1.47.2.1 An increase in the production rate, if the increase does not exceed the operating
167 design capacity of the affected facility or of the air pollution control equipment
168 installed on the affected facility,
- 169 1.47.2.2 An increase in the hours of operation when the increase does not result in a
170 violation of any applicable emission standards,
- 171 1.47.2.3 Use of an alternative fuel or raw material if, prior to the date any standard under
172 this regulation becomes applicable to that affected facility, the affected facility is
173 designed to accommodate the alternative use,
- 174 1.47.2.4 Use of an alternative fuel or raw material by reason of an order, rule, or natural
175 gas curtailment plan as approved by the District, or
- 176 1.47.2.5 Change in ownership of the stationary source.
- 177 1.48 “New affected facility” means any affected facility the construction, modification, or
178 reconstruction of which is commenced on or after the effective date of an applicable
emission standard.

- 180 1.49 "Nitrogen oxides" means all oxides of nitrogen, except nitrous oxide, as measured by test
181 methods specified by the District.
- 182 1.50 "Odor" means the property of an air contaminant that can be detected by the sense of
183 smell.
- 184 1.51 "Opacity" means the degree to which emissions reduce the transmission of light and
185 obscure the view of an object in the background.
- 186 1.52 "Open burning" means the burning of any matter in such a manner that the products of
187 combustion resulting from the burning are emitted directly into the outside air without
188 passing through a stack, chimney, vent, or other functionally equivalent opening.
- 189 1.53 "Organic compound" or "organic material" means a chemical compound of carbon that
190 has the same meaning as "volatile organic compound."
- 191 1.54 "Outside air" or "open air" means the air outside of buildings and structures.
- 192 1.55 "Owner or Operator" means any person who owns, leases, operates, controls, or
193 supervises one or more affected facilities.
- 194 1.56 "Particulate asbestos material" means finely divided particles of asbestos material.
- 195 1.57 "Particulate matter" means any material, except uncombined water, that exists in a finely
196 divided form as a liquid or a solid.
- 197 1.58 "Peer review" means an in-depth critique of assumptions, calculations, extrapolations,
198 alternate interpretations, methodology, and acceptance criteria employed, and of
199 conclusions drawn in the original project being reviewed by independent reviewers who
200 are experts in the technical issues relevant to the projects under review.
- 201 1.59 "PM₁₀" means particulate matter with an aerodynamic diameter less than or equal to a
202 nominal 10 micrometers as measured by a reference method based on 40 CFR Part 50
Appendix J and designated in accordance with 40 CFR Part 53, or by an equivalent
204 method designated in accordance with 40 CFR Part 53.
- 205 1.60 "PM_{2.5}" means particulate matter with an aerodynamic diameter less than or equal to a
206 nominal 2.5 micrometers as measured by a reference method based on 40 CFR Part 50
207 Appendix L and designated in accordance with 40 CFR Part 53, or by an equivalent
208 method designated in accordance with 40 CFR Part 53.
- 209 1.61 "Person" means any individual, firm, copartnership, joint venture, association,
210 corporation, social club, fraternal organization, estate, trust, receiver, syndicate, county,
211 city, municipality, district (for air pollution control or other purpose), or other political
212 subdivision, or any group or combination acting as a unit, and the plural as well as the
213 singular unit.
- 214 1.62 "Pollution prevention" (P2) means the use of materials, processes, or practices that
215 reduce or eliminate the creation of pollutants or wastes by the process. Pollution
216 prevention includes practices that reduce the use of hazardous and nonhazardous
217 materials, energy, water, or other resources as well as practices that protect natural
218 resources through conservation or more efficient use.
- 219 1.63 "Potential hazardous emissions" means an air pollutant, exclusive of pollutants regulated
220 under the Act Section 112(b), to which no ambient air quality standard is applicable and
221 that, in the judgment of the District, may cause, or contribute to, an increase in mortality
222 or an increase in serious irreversible, or incapacitating reversible, illness.
- 223 1.64 "Potential to emit" (PTE) means the maximum capacity of a stationary source or an
224 affected facility to emit a pollutant under its physical and operational design. Any
physical or operational limitation on the capacity of the stationary source or affected

facility to emit a pollutant, including air pollution control equipment and restrictions on the 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 federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source or affected facility.

1.65 “Process” means an action or operation, or a series of actions or operations, from which the emission of an air contaminant may originate. Examples of a “process” include any of the following:

1.65.1 The physical change of a material,

1.65.2 The chemical change of a material,

1.65.3 The combustion of a fuel, refuse, or waste material,

1.65.4 The storage of a material, and

1.65.5 The handling of a material.

1.66 “Process equipment” means all equipment, devices, and auxiliary components, including control equipment and stacks, used in a process.

1.67 “Reactor” means a vat or vessel, that may be jacketed to permit temperature control, designed to contain chemical reactions.

1.68 “Reasonably available control technology” (RACT) means devices, systems, process modifications, or other apparatus or techniques, including pollution prevention approaches, that are reasonably available taking into account the necessity of imposing those controls in order to attain and maintain a national ambient air quality standard and the social, environmental, and economic impact of those controls.

1.69 “Reconstruction” means the replacement of process equipment for an affected facility to the extent that the fixed capital cost of the new components exceeds 50% of the fixed capital cost of a comparable entirely new affected facility.

1.70 “Reference Method” means any method of sampling and analyzing for an air pollutant as prescribed in the following EPA regulations: Standards of Performance for New Stationary Sources (40 CFR part 60), National Emission Standards for Hazardous Air Pollutants (40 CFR part 61), National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR part 63, National Primary and Secondary Ambient Air Quality Standards (40 CFR part 50), and Requirements for Preparation, Adoption, and Submittal of Implementation Plans (40 CFR part 51).

1.71 “Regulation” means a rule or order adopted by the Board pursuant to KRS Chapter 77 for the control or abatement of air contaminants within its jurisdiction or for the administration of the District.

1.72 “Run” means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

1.73 “Sludge” means solid or semi-solid material produced by a treatment plant that processes municipal or industrial waste waters.

1.74 “Sludge dryer” means a device used to reduce the moisture content of a sludge by heating to temperatures above 65 °C directly with combustion gases.

1.75 “Stack or chimney” means a flue, conduit, or duct arranged to conduct a gas stream to the outside air.

1.76 “Standard conditions” means:

1.76.1 For source measurements, 20 °C and a pressure of 760 mm Hg, and

