

GLI Toxics Task Force

Proposed Revisions

to

Version 2

of the

STAR Program

(Blackline Version)

GLI Air Toxics Task Force Proposal

January 25, 2005

REGULATION 1.02 Definitions

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

Relates To: KRS Chapter 77 Air Pollution Control

Pursuant To: KRS Chapter 77 Air Pollution Control

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

SECTION 1 Definitions

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

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

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

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

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

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

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

1.7 "Ambient air" means that portion of the atmosphere, external to buildings, to which the general public has access. ~~For the purpose of determining the concentration of an air contaminant that is or may be emitted by a stationary source, ambient air also includes the atmosphere, external to buildings, that is beyond the property line of that stationary source, regardless of whether the general public has access.~~

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

1.8.1 A specified concentration for a particular air contaminant and

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

- 45 1.9 “Annual mean” means an average determined on the basis of any consecutive 12-month
46 interval.
- 47 1.10 “Asbestos” means the asbestiform varieties of serpentinite (chrysotile), riebeckite
48 (crocidolite), cummingtonite-grunerite, amosite, anthophyllite, and actinolote-tremolite.
- 49 1.11 “Asbestos mill” means any process or process equipment engaged in converting, or in
50 any intermediate step in converting, asbestos ore into commercial asbestos. Outside
51 storage of asbestos materials is not considered a part of the asbestos mill.
- 52 1.12 “Asbestos material” means asbestos or any material containing asbestos.
- 53 1.13 “Asbestos tailings” means any solid waste that contains asbestos and is a product of
54 asbestos mining or milling operations.
- 55 1.14 “Best available control technology” (BACT) means an emission limitation, including a
56 visible emission standard, based on the maximum degree of reduction for each pollutant
57 subject to regulation that would be emitted from any proposed new or modified process
58 or process equipment that the District, on a case-by-case basis, taking into account
59 energy, environmental, and economic impacts and other costs, determines is achievable
60 for that new or modified process or process equipment through the application of
61 production processes or available methods, systems, and techniques, including fuel
62 cleaning or treatment, innovative fuel combustion techniques, and pollution prevention
63 approaches, for elimination, reduction, or control of that pollutant. In no event shall the
64 application of best available control technology result in emissions of any pollutant that
65 would exceed the emissions allowed by any applicable standard under Regulation 5, 6, or
66 7. If the District determines that technological or economic limitations on the application
67 of measurement methodology to a particular process or process equipment would make
68 the imposition of an emissions standard infeasible, a design, equipment, work practice, or
69 operational standard, or combination of those approaches, may be prescribed instead.
- 70 1.15 “Board” means the Air Pollution Control Board of Jefferson County as provided for in
71 KRS Chapter 77.
- 72 1.16 “Bypass” means the intentional diversion of air contaminants from air pollution control
73 equipment or process equipment that normally reduces the emission of the air
74 contaminants.
- 75 1.17 “Cabinet” means the Environmental and Public Protection Cabinet of the Commonwealth
76 of Kentucky as provided for in KRS Chapter 224.
- 77 1.18 “Cancer” means ~~a disease of heritable, somatic mutations affecting cell growth and~~
78 ~~differentiation, characterized by an abnormal, uncontrolled growth of cells~~any one of a
79 group of diseases that occur when cells in the body become abnormal and grow or
80 multiply out of control.
- 81 1.19 “Cancer risk” means a theoretical risk for getting cancer if exposed to a substance every
82 day for 70 years (a lifetime exposure). The true risk might be lower.
- 83 1.20 “Carcinogen” means an agent capable of inducing a substance that causes cancer.
- 84 ~~1.20~~1.21 “Chronic noncancer effect” means a biochemical change, functional impairment,
85 or pathological lesion that affects the performance of the whole organism, or reduces an
86 organism’s ability to respond to an additional environmental challenge that occurs as a
87 result of repeated or long term exposures.
- 88 ~~1.21~~1.22 “Commence” means that an owner or operator has obtained all necessary
89 preconstruction approvals or permits and has either:

90 ~~1.21.1.22.1~~ Begun, or caused to begin, a continuous program of actual on-site construction or
 91 modification, to be completed within a reasonable time, or
 92 ~~1.21.21.22.2~~ Entered into a binding agreement or a contractual obligation, that cannot be
 93 canceled or modified without substantial loss to the owner or operator, to
 94 undertake a continuous program of actual on-site construction or modification, to
 95 be completed within a reasonable time.
 96 ~~1.221.23~~ “Commercial asbestos” means any asbestos that is extracted from asbestos ore.
 97 ~~1.231.24~~ “Compliance plan and schedule” means a list of remedial measures including an
 98 enforceable sequence and timing of actions or operations leading to compliance with a
 99 limitation or standard by a specific date.
 100 ~~1.241.25~~ “Construction” means fabrication, erection, modification, or installation of an
 101 affected facility or any portion of an affected facility.
 102 ~~1.251.26~~ “Demolition” means the wrecking or taking out of any load-supporting structural
 103 member of a structure together with any related handling operations.
 104 ~~1.261.27~~ “District” means the Air Pollution Control District of Jefferson County as
 105 provided for in KRS Chapter 77.
 106 1.28 “District-only enforceable” means that the limitation or condition is derived solely from
 107 the District’s air pollution control regulations and is not federally or state enforceable.
 108 ~~1.271.29~~ “Division” means the Division for Air Quality of the Environmental and Public
 109 Protection Cabinet of the Commonwealth of Kentucky as provided for in KRS Chapter
 110 224.
 111 ~~1.281.30~~ “Emission standard” means a requirement that is contained in a federal, state, or
 112 local law or regulation, District permit, or Board Order, or is otherwise legally
 113 enforceable requirement that limits the quantity, rate, or concentration, or opacity of the
 114 emissions of an air contaminants into the ambient air on a continuous basis, including any
 115 requirement related to the operation or maintenance of a process or process equipment to
 116 assure continuous emission reduction, and any required design, equipment, work practice,
 117 or operational standard.
 118 ~~1.291.31~~ “Equivalent method” means any method of sampling and analyzing for an air
 119 pollutant that has been demonstrated to the satisfaction of the EPA to have a consistent
 120 and quantitatively-known relationship to the reference method under specified conditions.
 121 ~~1.301.32~~ “Excess emissions” means emissions that exceed an applicable emission standard.
 122 ~~An applicable emissions standard would include a surrogate emission standard, such as~~
 123 ~~volatile organic compounds that would include a toxic air contaminant, for which~~
 124 ~~environmental acceptability has been demonstrated pursuant to Regulation 5.21. If there~~
 125 ~~is not an applicable emission standard for a toxic air contaminant established pursuant to~~
 126 ~~Regulation 5.21 *Environmental Acceptability for Toxic Air Contaminants*, then, for the~~
 127 ~~purpose of the notification and reporting requirements of Regulation 1.07 *Excess*~~
 128 ~~*Emissions During Startups, Shutdowns, and Malfunctions*, excess emissions shall also~~
 129 ~~mean emissions that exceed 125% of the reported actual maximum hourly emission rate~~
 130 ~~of a toxic air contaminant that results from a startup, shutdown, or malfunction.1.31~~
 131 1.33 “Existing affected facility”, except as otherwise specified under applicable regulations,
 132 means any affected facility that is in existence or has commenced construction before the
 133 effective date of the applicable emission standard and that has not been subsequently
 134 modified or reconstructed.

- 135 1.321.34 "Federally Enforceable District Origin Operating Permit" (FEDOOP) means a
136 non-Title V operating permit issued by the District that contains a federally-enforceable
137 permit condition, limit, or provision.
- 138 1.331.35 "Fixed capital cost" means the capital needed to provide all of the depreciable
139 components.
- 140 1.341.36 "Fuel" means natural gas, petroleum, coal, wood, and any other form of solid,
141 liquid, or gaseous matter consumed for the purpose of creating useful heat.
- 142 1.351.37 "Fugitive emissions" means those emissions that could not reasonably pass
143 through a stack, chimney, vent, or other functionally equivalent opening.
- 144 1.361.38 "Hazardous air pollutant" (HAP) means any air pollutant listed in Regulation 5.14
145 *Hazardous Air Pollutants and Source Categories* Section 2 pursuant to the Act §112(b).
- 146 1.371.39 "Incineration" means the process of igniting and burning solid, semi-solid, liquid,
147 or gaseous combustible or partially combustible wastes.
- 148 1.381.40 "Incinerator" means any furnace used in the process of burning waste for the
149 purpose of reducing the volume of waste by removing combustible matter.
- 150 1.391.41 "Lowest achievable emission rate" (LAER) means, for any affected facility, that
151 rate of emissions based on the more stringent of the following:
- 152 1.39.1.42.1 The most stringent emission limitation that is contained in the implementation
153 plan of any State for that class or category of affected facility, unless the owner or
154 operator of the proposed affected facility demonstrates that this limitation is not
155 achievable, or
- 156 1.39.2.43.2 The most stringent emission limitation that is achieved in practice by that class or
157 category of affected facility taking into consideration the pollutant that must be
158 controlled. In no event shall the application of lowest achievable emission rate
159 permit a proposed affected facility to emit any pollutant in excess of the amount
160 allowable under applicable new source standards pursuant to Regulations 5, 6, or
161 7 or 40 CFR parts 60, 61, or 63.
- 162 1.401.44 "Major source", except as specified in another regulation for use in that
163 regulation, means any stationary source that emits, or has the potential to emit, 100 tons
164 per year or more of any air pollutant subject to regulation under the Act, 10 tons or more
165 of an individual hazardous air pollutant (HAP), or 25 tons per year or more of a
166 combination of HAPs.
- 167 1.411.45 "Malfunction" means ~~the~~ failure of air pollution control equipment ~~or~~ process
168 equipment, ~~or of~~ a process to operate in a normal or usual manner that causes, ~~or is likely~~
169 ~~to cause, emissions that exceed~~ results in an exceedance of an applicable emission
170 standard, and that is not caused entirely or in part by poor maintenance, careless
171 operation, or other preventable upset condition or preventable equipment breakdown."
- 172 1.421.46 "Maximum achievable control technology" (MACT) means the maximum
173 achievable control technology defined in the Act §112 (d)(3).
- 174 1.431.47 "Modification", except as specified in another regulation for use in that
175 regulation, means any physical change in, or change in the method of operation of, an
176 affected facility that increases the amount of any air pollutant (to which an emission
177 standard applies) emitted by that affected facility or that results in the emission of any air
178 pollutant (to which an emission standard applies) not previously emitted, except that:
- 179 1.43.1.47.1 Routine maintenance, repair, and replacement shall not be considered a physical
180 change, and
)

181 ~~1.43.2~~1.47.2 A change in the method of operation, unless previously limited by permit
182 conditions, shall not include:

183 ~~1.43.2.1~~1.47.2.1 An increase in the production rate, if the increase does not exceed the
184 operating design capacity of the affected facility or of the air pollution control
185 equipment installed on the affected facility,

186 ~~1.43.2.2~~1.47.2.2 An increase in the hours of operation when the increase does not result in
187 a violation of any applicable emission standards,

188 ~~1.43.2.3~~1.47.2.3 Use of an alternative fuel or raw material if, prior to the date any standard
189 under this regulation becomes applicable to that affected facility, the affected
190 facility is designed to accommodate the alternative use,

191 ~~1.43.2.4~~1.47.2.4 Use of an alternative fuel or raw material by reason of an order, rule, or
192 natural gas curtailment plan as approved by the District, or

193 ~~1.43.2.5~~1.47.2.5 Change in ownership of the stationary source.

194 ~~1.44~~1.48 “New affected facility” means any affected facility the construction, modification,
195 or reconstruction of which is commenced on or after the effective date of an applicable
196 emission standard.

197 ~~1.45~~1.49 “Nitrogen oxides” means all oxides of nitrogen, except nitrous oxide, as measured
198 by test methods specified by the District.

199 ~~1.46~~1.50 “Odor” means the property of an air contaminant that can be detected by the sense
200 of smell.

201 ~~1.47~~1.51 “Opacity” means the degree to which emissions reduce the transmission of light
202 and obscure the view of an object in the background.

203 ~~1.48~~1.52 “Open burning” means the burning of any matter in such a manner that the
204 products of combustion resulting from the burning are emitted directly into the outside air
205 without passing through a stack, chimney, vent, or other functionally equivalent opening.

206 ~~1.49~~1.53 “Organic compound” or “organic material” means a chemical compound of
207 carbon that has the same meaning as “volatile organic compound.”

208 ~~1.50~~1.54 “Outside air” or “open air” means the air outside of buildings and structures.

209 ~~1.51~~1.55 “Owner or Operator” means any person who owns, leases, operates, controls, or
210 supervises one or more affected facilities.

211 ~~1.52~~1.56 “Particulate asbestos material” means finely divided particles of asbestos material.

212 ~~1.53~~1.57 “Particulate matter” means any material, except uncombined water, that exists in
213 a finely divided form as a liquid or a solid.

214 1.58 “Peer review” means an in-depth critique of assumptions, calculations, extrapolations,
215 alternate interpretations, methodology, and acceptance criteria employed, and of
216 conclusions drawn in the original project being reviewed by independent reviewers who
217 are experts in the technical issues relevant to the projects under review.

218 ~~1.54~~1.59 “PM₁₀” means particulate matter with an aerodynamic diameter less than or equal
219 to a nominal 10 micrometers as measured by a reference method based on 40 CFR Part
220 50 Appendix J and designated in accordance with 40 CFR Part 53, or by an equivalent
221 method designated in accordance with 40 CFR Part 53.

222 ~~1.55~~1.60 “PM_{2.5}” means particulate matter with an aerodynamic diameter less than or equal
223 to a nominal 2.5 micrometers as measured by a reference method based on 40 CFR Part
224 50 Appendix L and designated in accordance with 40 CFR Part 53, or by an equivalent
225 method designated in accordance with 40 CFR Part 53.

226 1.561.61 "Person" means any individual, firm, copartnership, joint venture, association,
227 corporation, social club, fraternal organization, estate, trust, receiver, syndicate, county,
228 city, municipality, district (for air pollution control or other purpose), or other political
229 subdivision, or any group or combination acting as a unit, and the plural as well as the
230 singular unit.

231 1.571.62 "Pollution prevention" (P2) means the use of materials, processes, or practices
232 that reduce or eliminate the creation of pollutants or wastes by the process. Pollution
233 prevention includes practices that reduce the use of hazardous and nonhazardous
234 materials, energy, water, or other resources as well as practices that protect natural
235 resources through conservation or more efficient use.

236 1.581.63 "Potential hazardous emissions" means an air pollutant, exclusive of pollutants
237 regulated under the Act Section 112(b), to which no ambient air quality standard is
238 applicable and that, in the judgment of the District, may cause, or contribute to, an
239 increase in mortality or an increase in serious irreversible, or incapacitating reversible,
240 illness.

241 1.591.64 "Potential to emit" (PTE) means the maximum capacity of a stationary source or
242 an affected facility to emit a pollutant under its physical and operational design. Any
243 physical or operational limitation on the capacity of the stationary source or affected
244 facility to emit a pollutant, including air pollution control equipment and restrictions on
245 the hours of operation or on the type or amount of material combusted, stored, or
246 processed, shall be treated as part of its design if the limitation or the effect it would have
247 on emissions is federally enforceable. Secondary emissions do not count in determining
248 the potential to emit of a stationary source or affected facility.

249 1.601.65 "Process" means an action or operation, or a series of actions or operations, from
250 which the emission of an air contaminant may originate. Examples of a "process"
251 include any of the following:

252 1.60.1.65.1 The physical change of a material,
253 1.60.2.65.2 The chemical change of a material,
254 1.60.3.65.3 The combustion of a fuel, refuse, or waste material,
255 1.60.4.65.4 The storage of a material, and
256 1.60.5.65.5 The handling of a material, and 1.60.6 ————— The use of a material.

257 1.61.66 "Process equipment" means all equipment, devices, and auxiliary components,
258 including control equipment and stacks, used in a process.

259 1.62.67 "Reactor" means a vat or vessel, that may be jacketed to permit temperature
260 control, designed to contain chemical reactions.

261 1.63.68 "Reasonably available control technology" (RACT) means devices, systems,
262 process modifications, or other apparatus or techniques, including pollution prevention
263 approaches, that are reasonably available taking into account the necessity of imposing
264 those controls in order to attain and maintain a national ambient air quality standard and
265 the social, environmental, and economic impact of those controls.

266 1.64.69 "Reconstruction" means the replacement of process equipment for an affected
267 facility to the extent that the fixed capital cost of the new components exceeds 50% of the
268 fixed capital cost of a comparable entirely new affected facility.

269 1.65.70 "Reference Method" means any method of sampling and analyzing for an air
270 pollutant as prescribed in the following EPA regulations: Standards of Performance for
! New Stationary Sources (40 CFR part 60), National Emission Standards for Hazardous

