

[If adopted, this would be a new regulation]

[Approved by the Committee of the Whole on January 13, 2005, for Public Review]

[Changes to Draft #2 (the proposed regulation) are redlined and double underlined]

1 **REGULATION 5.21 Environmental Acceptability for Toxic Air Contaminants**

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 establishes the criteria for determining the environmental acceptability
9 of emissions of toxic air contaminants.

10 **SECTION 1 Definitions**

11 Terms used in this regulation that are not defined in this regulation shall have the meaning given to
12 them in Regulation 1.02 *Definitions* or Regulation 5.01 *General Provisions*.

13 1.1 “Best available technology for toxics” or “T-BAT” means an emission standard that reflects
14 the maximum degree of toxic air contaminant (TAC) emission and risk reduction that the
15 District determines can be reasonably achieved by the process or process equipment, taking
16 into account energy, environmental, and economic impacts and health and welfare benefits.
17 In determining T-BAT, the District shall consider work practices, raw material substitutions,
18 production limitations including limitations on the hours of operation, alternative processes
19 and process design characteristics, air pollution control equipment, and pollution prevention
20 measures, equipment maintenance measures (including leak detection and repair), and upset
21 condition prevention measures.

22 1.2 “Environmentally acceptable” or “environmental acceptability” (EA) means the ambient
23 concentration, including an averaging time frame, of a TAC, or the sum of the ambient
24 concentrations, including an averaging time frame, of multiple TACs, that is less than or
25 equal to the ambient goals and standards established in this regulation (EA goals). These EA
26 goals and standards are collectively referred to as “EA levels.”

27 1.3 “Existing process or process equipment” means, for the provisions of this regulation, one of
28 the following:

29 1.3.1 A process or process equipment, for which the application for a construction permit was
30 received by the District before January 14, 2005, or for which the construction permit
31 was issued by the District before [insert the effective date of this regulation] did not
32 qualify under any of the circumstances described in section 1.5, that involves the
33 potential emission of a Category 1 or 2 TAC from a Group 1 or 2 stationary source; excluding the process and process equipment for the initial transfer of gasoline into the
34 fuel tank of a new motor vehicle at an automobile or truck assembly plant, excluding the
35 potential emission of a Category 2 TAC if the owner or operator did not report the
36 emission of that TAC to the EPA for the 2002 Toxics Release Inventory Program, or

37 1.3.2 A process or process equipment located at a permitted stationary source, for which the
38 application for a construction permit was received by the District before
39 January 14, 2005, or for which the construction permit was issued by the District before
40 [insert the effective date of this regulation], that involves the potential emission of a TAC
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- 42 for which the District determines that the emissions do not comply with the general duty
43 clause of Regulation 5.01 Section 3.
- 44 1.4 “Hazard quotient” or “HQ” means the ratio between the concentration of a TAC and the
45 benchmark ambient concentration for noncarcinogenic effects for that TAC (BAC_{NC}). A
46 hazard quotient is a unitless numerical value.
- 47 1.5 “Industrial property” means property on which the activities are industrial in nature, for
48 example, manufacturing, utilities, industrial research and development, or petroleum bulk
49 storage. This term does not include a farm or a commercial establishment.
- 50 1.6 “New or modified process or process equipment” means, for the provisions of this
51 regulation, a process or process equipment for which the District has received a construction
52 permit application that meets one of the following circumstances:
- 53 1.6.1 A process or process equipment, for which the application for a construction permit was
54 received by the District on or after January 14, 2005, unless the construction permit was
55 issued by the District before [insert the effective date of this regulation], that The
56 application involves the potential emission of a Category 1; 2, 3, or 4 TAC from a
57 Group 1 or 2 stationary source and the construction permit is issued by the District on
58 or after [insert the effective date of this regulation], or
- 59 1.5.2 The application involves the potential emission of a Category 3 or 4 TAC from a Group
60 1 or 2 stationary source, but does not involve the potential emission of a Category 1 or
61 2 TAC, and an administratively complete construction permit application was received
62 by the District on or after [insert the effective date of this regulation], unless the
63 construction permit application had been received by the District before June 30, 2004,
64 or
- 65 1.6.2 The application involves the potential emission of a TAC from a permitted stationary
66 source, for which the application for a construction permit was received by the District
67 on or after January 14, 2005, unless the construction permit was issued by the District
68 before [insert the effective date of this regulation], and the District determines that the
69 emission would not comply with the general duty clause of Regulation 5.01 Section 3.
- 70 1.7 “Permitted stationary source” means a stationary source that is subject to the permit
71 requirements of Regulation 2.03 section 1.1 or 1.2.
- 72 1.8 “Source sector” means the general grouping of sources of air contaminants used by the
73 District for developing anthropogenic emissions inventories. These source sectors are as
74 follows:
- 75 1.8.1 Point source - industrial or commercial stationary source that is subject to the permit
76 requirements in Regulation 2.03 section 1.1 or 1.2 (permitted stationary source).
- 77 1.8.2 Area source - non-permitted commercial stationary source or other anthropogenic source
78 of emissions that is not included in section 1.7.1, 1.7.3, or 1.7.4.
- 79 1.8.3 Mobile source - motorized vehicle that is registered for use on the public roads and
80 highways.
- 81 1.8.4 Nonroad mobile source - motorized vehicle that is not registered for use on the public
82 roads and highways or any other equipment with a fossil fuel-fired engine that is not a
83 point source.

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84 SECTION 2 Ambient Goals and Standards for Environmental Acceptability for Toxic Air
85 Contaminants

86 2.1 The risk, as determined pursuant to the procedures in section 2.2, resulting from the allowed
87 emissions of TACs, excluding de minimis emissions and the Category 3 and 4 TAC
88 emissions for which the allowed emissions were approved pursuant to section 3.1.2.2, from
89 new or modified processes or process equipment, as defined in section 1.65, shall not exceed
90 the ambient goals levels of environmental acceptability (EA goalslevels) for TACs in
91 section 2.2, except as provided in section 2.3.

92 2.2 The following table establishes the EA goals for TACs for new or modified processes or
93 process equipment:

	Applicable Source Sector	Applicable Process or Process Equipment ¹	Applicable TACs	Goal or Standard	EAGL _C ^{2,3} Risk (∅10 ⁻⁶) ⁶	EAGL _{NC} ^{4,5} HQ
94	2.2.1 Point source	Individual stationary source, individual new or modified P/PE	Individual TAC	<u>Goal</u>	1.0	<u>1.0</u> <u>HQ = 0.20</u>
95	2.2.2 Point source	Individual stationary source, all new or modified P/PE	Individual TAC	<u>Goal</u>		<u>1.0</u> <u>HQ = 0.38</u>
96	2.2.3 Point source	Individual stationary source, all new or modified P/PE	Total for all applicable TACs	<u>Goal</u>	3.8	

97 Notes for section 2.2 (also applicable to section 2.5):

98 ¹ Process or process equipment is abbreviated P/PE.

99 ² R_C, or the risk, in units of risk in one million, from an individual TAC that is determined
100 to be a carcinogen, as applicable to section 2.2.1 (or section 2.5.1), means the cancer risk
101 from an individual TAC from an individual process or process equipment, derived from
102 the following equation:

$$R_C = \frac{\text{Maximum concentration}_{i,j}}{BAC_{C_i}} \quad [\text{Equation 1}]$$

104 Where: i = an individual carcinogenic TAC, from
105 j = an individual new or modified process or process equipment,
106 BAC_{C_i} = the benchmark ambient concentration for that carcinogenic
107 TAC, as determined pursuant to Regulation 5.20 Section 3,
108 and

109 Maximum concentration = the highest concentration of a TAC in the
110 ambient air, taking into account the applicable averaging time
111 frame for the TAC, as determined pursuant to Regulation 5.22

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112 *Procedures for Determining the Maximum Ambient*
113 *Concentration of a Toxic Air Contaminant.*

114 ³ R_C, or the risk, in units of risk in one million, from all TACs that are determined to be
115 carcinogens, as applicable to section 2.2.3 (or section 2.5.3), means the sum of the cancer
116 risks at a single point from all individual TACs from all applicable individual processes
117 or process equipment, derived from the following equation:

$$118 \quad R_C = \sum_{i=1}^n \sum_{j=1}^m \frac{\text{Maximum concentration}_{i,j}}{BAC_{C_i}} \quad [\text{Equation 2}]$$

119 Where: i = an individual carcinogenic TAC, from
120 j = an individual process or process equipment,
121 n = the total number of carcinogenic TACs to be included in the
122 demonstration of environmental acceptability,
123 m = the total number of processes or process equipment from
124 which carcinogenic TAC “i” may be emitted,
125 BAC_{C_i} = the benchmark ambient concentration for that carcinogenic
126 TAC, as determined pursuant to Regulation 5.20 Section 3,
127 and
128 Maximum concentration = the concentration of a toxic air
129 contaminant in the ambient air at the point of maximum risk
130 of all applicable “i” emissions from all applicable “j”
131 processes or process equipment, taking into account the
132 applicable averaging time frame for the TAC, as determined
133 pursuant to Regulation 5.22.

134 ⁴ R_{NC}, or the risk from the noncarcinogenic effects of an individual TAC, as applicable to
135 section 2.2.1 (or 2.5.1), means the hazard quotient of the TAC from an individual process
136 or process equipment, derived from the following equation:

$$137 \quad R_{NC} = HQ_i = \frac{\text{Maximum concentration}_{i,j}}{BAC_{NC_i}} \quad [\text{Equation 3}]$$

138 Where: i = an individual TAC, from
139 j = an individual process or process equipment,
140 BAC_{NC} = the benchmark ambient concentration for the
141 noncarcinogenic effects of the TAC, as determined
142 pursuant to Regulation 5.20 Section 4, and
143 Maximum concentration = the highest concentration of a toxic air
144 contaminant in the ambient air, taking into account the
145 applicable averaging time frame for the TAC, as
146 determined pursuant to Regulation 5.22.

147 ⁵ R_{NC}, or the risk from the noncarcinogenic effects of an individual TAC from all
148 applicable individual processes or process equipment, as applicable to section 2.2.2 (or
149 2.5.2), means the hazard quotient of the TAC at a single point from all applicable
150 processes or process equipment, derived from the following equation:

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$$R_{NC} = HQ_i = \sum_{j=1}^m \frac{\text{Maximum concentration}_{i,j}}{BAC_{NC_i}} \quad [\text{Equation 4}]$$

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Where: i = an individual TAC, from

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j = an individual process or process equipment,

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m = the total number of processes or process equipment from which TAC "i" may be emitted,

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BAC_{NC} = the benchmark ambient concentration for the noncarcinogenic effects of the TAC, as determined pursuant to Regulation 5.20 Section 4, and

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Maximum concentration = the concentration of a toxic air

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contaminant in the ambient air at the point of maximum concentration of the "i" emissions from all applicable "j" processes or process equipment, taking into account the applicable averaging time frame for the TAC, as determined pursuant to Regulation 5.22.

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⁶ The EAGL_C Risk is in units of risk in one million.

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2.3 Modification of the EA goals.

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2.3.1 After providing an opportunity for public review and comment, the District may approve a written request from the owner or operator of a new or modified process or process equipment to exceed one or more of the EA goals in section 2.2, provided that the applicable EA goals in sections 2.5.2 and 2.5.3 are met or a modification of the applicable EA goals in sections 2.5.2 and 2.5.3 is also approved by the District pursuant to the modification process in section 2.6.:

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2.3.1.1 One or both of the EA goals in section 2.2.1, provided that the applicable EA goals in sections 2.2.2 and 2.2.3 are met, and

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2.3.1.2 One or both of the EA goals in sections 2.2.2 and 2.2.3, provided that the applicable EA standards in sections 2.5.2 and 2.5.3 are met.

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2.3.2 As part of the request pursuant to section 2.3.1, the owner or operator shall submit a demonstration that the process or process equipment complies with, or, pursuant to a proposed plan and schedule, will comply with, each element of T-BAT. that is listed in section 1.1 has been considered and that The demonstration shall document that all practices and measures potentially applicable to the process or process equipment, including technology transfer, from readily available information from any jurisdiction and other sources of air pollution control information, including, but not limited to, the New and Emerging Environmental Technologies (NEET) Clean Air Technologies Database, available on the Internet at "http://neet.rti.org", have been reviewed and considered.

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2.3.3 In making the determination whether to approve the request, If the District shall determines that the T-BAT requirement of section 2.3.2 is met, or will be met in a timely manner, then the District shall, consistent with section 2.3.1, approve the request for modification of the applicable EA goals in section 2.2.consider, among other factors, whether, and the extent to which, the allowed emissions from the process or process equipment reflect the application of the best available technology for toxics (T-BAT).

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- 193 The District shall also consider relevant, including both current and up to 25 years in the
 194 future, the demographic and land use factors.
 195 2.3.4 If the District approves a request to exceed one or more of the EA goals in section 2.2,
 196 then any resulting emission standard and any approved plan and schedule for compliance
 197 with the T-BAT requirement shall be an enforceable requirement of the applicable
 198 District permit for the affected process and process equipment.
 199 2.4 The risk, as determined pursuant to the procedures in section 2.5, resulting from the allowed
 200 emissions of TACs, as specified in sections 2.4.1 to 2.4.3, excluding de minimis emissions,
 201 from processes and process equipment at a point source, as specified in sections 2.4.1 to
 202 2.4.3, shall not, taking into account the compliance schedule for the various categories of
 203 TACs in section 4.5, exceed the EA goals levels for TACs in section 2.5 as follows, except
 204 as provided in sections 2.6 and 2.7:
 205 2.4.1 The EA goals in section 2.5.1 are applicable to Category 1 and 2 TACs from existing
 206 processes and process equipment,
 207 2.4.2 The EA goals standards in sections 2.5.2 and 2.5.3 are applicable to Category 1 and 2
 208 TACs from all existing processes and process equipment and Category 1, 2, 3, and 4
 209 TACs from all new or modified processes or process equipment, excluding the Category
 210 3 and 4 TAC emissions for which the allowed emissions were approved pursuant to
 211 section 3.1.2.2, and
 212 2.4.3 The EA goals and standards in section 2.5 are applicable to a process or process
 213 equipment for which the District determines that the emissions of a TAC do not comply
 214 with the general duty clause of Regulation 5.01 Section 3.
 215 2.5 The following table establishes the EA goals levels for TACs for processes and process
 216 equipment, as specified in sections 2.4.1 to 2.4.3, at a point source:

	<u>Applicable</u> <u>Source</u> <u>Sector</u>	<u>Applicable Process or</u> <u>Process Equipment</u> ¹	<u>Applicable</u> <u>TACs</u>	<u>Goal</u> <u>or</u> <u>Standard</u>	<u>EA</u> <u>GL</u> _C ^{2,3} <u>Risk</u> ($\otimes 10^{-6}$) ⁶	<u>EA</u> <u>GL</u> _{NC} ^{4,5} <u>HQ</u>
217	2.5.1	Point source Individual stationary source, individual existing P/PE	Individual TAC	<u>Goal</u>	1.0	<u>1.0</u> <u>HQ = 0.20</u>
218	2.5.2	Point source Individual stationary source, all P/PE, including new or modified P/PE	Individual TAC	<u>Standard</u>		<u>1.0</u> <u>HQ = 0.75</u>
219	2.5.3	Point source Individual stationary source, all P/PE, including new or modified P/PE	Total for all applicable TACs	<u>Standard</u>	7.5	

220 Notes for section 2.5: See the notes for section 2.2.

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- 221 2.6 Modification of the EA goals.
- 222 2.6.1 After providing an opportunity for public review and comment, the District may approve
- 223 a written request from the owner or operator of a process or process equipment subject
- 224 to the EA goals in section 2.5.1 to exceed one or more both of the those EA goals in
- 225 section 2.5, provided that the corresponding EA standards in sections 2.5.2 and 2.5.3 are
- 226 met.
- 227 2.6.2 As part of the request pursuant to section 2.6.1, the owner or operator shall submit the
- 228 following as applicable:
- 229 2.6.2.1 For a request to exceed any of the EA goals in section 2.5, a demonstration that the
- 230 process or process equipment complies with, or, pursuant to a proposed plan and
- 231 schedule, will comply with, each element of T-BAT, that is listed in section 1.1 has
- 232 been considered and that The demonstration shall document that all practices and
- 233 measures potentially applicable to the process or process equipment, including
- 234 technology transfer, from readily available information from any jurisdiction and
- 235 other sources of air pollution control information, including, but not limited to, the
- 236 (NEET) Clean Air Technologies Database, available on the Internet at
- 237 “http://neet.rti.org”, have been reviewed and considered, and-
- 238 2.6.2.2 For a request to exceed an EA goal in section 2.5.2 or 2.5.3, an evaluation of
- 239 relevant, including both current and up to 25 years in the future, demographic and
- 240 land use factors. Relevant factors shall include, but are not limited to, the frequency
- 241 and duration of public access to the area for which the EA goal is exceeded, the
- 242 nature, type, and use of the area, and how each relevant factor may likely change
- 243 over the 25-year period of time. In evaluating future changes, available land use,
- 244 population, and transportation horizon projections shall be included.
- 245 2.6.3 In making the determination whether to approve the request, the District shall determine
- 246 whether the T-BAT requirement of section 2.6.2.1 is met, or will be met in a timely
- 247 manner, and shall, if applicable, consider, among other factors, whether, and the extent
- 248 to which, the allowed emissions from the process or process equipment reflect the
- 249 application of the best available technology for toxics (T-BAT). The District shall also
- 250 consider relevant, including both current and up to 25 years in the future, the
- 251 demographic and land use factors information required by section 2.6.2.2. If the District
- 252 determines that the T-BAT requirement is met, or will be met in a timely manner, and,
- 253 if applicable, considering the information required by section 2.6.2.2, determines that the
- 254 resulting allowable emissions would provide an ample margin of safety to the exposed
- 255 population, then the District shall approve a modification of the applicable EA goal not
- 256 to exceed a Hazard Quotient, pursuant to section 2.5.2, of 3.0, or a risk, pursuant to
- 257 section 2.5.3, of 100.
- 258 2.6.4 If the District approves a request to exceed one or more of the EA goals in section 2.5,
- 259 then the approved level of the modified EA goal, or a lesser level as determined
- 260 appropriate by the District, taking into account other affected processes and process
- 261 equipment, shall be added to the applicable EA goal in section 2.5. If the District
- 262 approves a request to exceed one or both of the EA goals in sections 2.5.2 and 2.5.3, then
- 263 the approved level of the modified EA goal, or a lesser level as determined appropriate
- 264 by the District, taking into account other affected stationary sources, shall be added to

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265 the applicable EA goal in section 2.8. Any resulting emission standard and any approved
 266 plan and schedule for compliance with the T-BAT requirement shall be an enforceable
 267 requirement of the applicable District permit for the affected process and process
 268 equipment.

269 2.7 The owner or operator of a new or modified process or process equipment, except for a new
 270 or modified process or process equipment that was approved by the District to exceed one
 271 or both of the EA goals in section 2.2.2 or 2.2.3 pursuant to the provisions of section 2.3, is
 272 not required to demonstrate compliance with the EA goals standards in sections 2.5.2 or
 273 2.5.3 until required to do so pursuant to the provisions of section 4.1, taking into account the
 274 schedule for the various categories of TACs.

275 2.8 The EA goals for TACs, applicable to the risk, as determined pursuant to the procedures in
 276 section 2.8, resulting from the allowed emissions from existing processes and process
 277 equipment, as defined in section 1.3, and new or modified processes and process equipment,
 278 as defined in section 1.65 (including the Category 3 and 4 TAC emissions for which the
 279 allowed emissions were approved pursuant to section 3.1.2.2), excluding de minimis
 280 emissions, are as follows:

	<u>Applicable</u> <u>Source</u> <u>Sector</u>	<u>Applicable Source</u> <u>of Emission</u>	<u>Applicable</u> <u>TACs</u>	<u>Goal</u> <u>or</u> <u>Standard</u>	<u>EAGL_C¹</u> <u>Risk</u> <u>($\otimes 10^{-6}$)³</u>	<u>EAGL_{NC}²</u> <u>HQ</u>
281	2.8.1	Point source	Applicable processes and process equipment	Individual TAC	<u>Goal</u>	<u>1.0</u> <u>HQ = 1.00</u>
282	2.8.2	Point source	Applicable processes and process equipment	Total for all applicable TACs	<u>Goal</u>	10.0

283 Notes for section 2.8:

284 ¹ R_C, or the risk, in units of risk in one million, from all TACs that are determined to be
 285 carcinogens, as applicable to section 2.8.2, means the sum of the cancer risks at a single
 286 point from all individual TACs from all applicable stationary sources, derived from the
 287 following equation:

$$R_C = \sum_{i=1}^n \sum_{j=1}^m \frac{\text{Maximum concentration}_{i,j}}{BAC_{C_i}} \quad [\text{Equation 5}]$$

289 Where: i = an individual carcinogenic TAC, from
 290 j = an individual source of emission,
 291 n = the total number of carcinogenic TACs to be included in the
 292 demonstration of environmental acceptability,
 293 m = the total number of sources of emission from which

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294 carcinogenic TAC “i” may be emitted,
 295 BAC_{Ci} = the benchmark ambient concentration for that carcinogenic
 296 TAC, as determined pursuant to Regulation 5.20 Section 3,
 297 and
 298 Maximum concentration = the concentration of a toxic air
 299 contaminant in the ambient air at the point of maximum risk
 300 of all applicable “i” emissions from all applicable “j” sources
 301 of emission, taking into account the applicable averaging time
 302 frame for the TAC, as determined pursuant to Regulation
 303 5.22.

304 ² R_{NC} , or the risk from the noncarcinogenic effects of an individual TAC, as applicable to
 305 section 2.8.3, means the hazard quotient of the TAC from all applicable stationary
 306 sources, derived from the following equation:

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$$R_{NC} = HQ_i = \sum_{j=1}^m \frac{\text{Maximum concentration}_{ij}}{BAC_{NC_i}} \quad [\text{Equation 6}]$$

308 Where: i = an individual TAC, from
 309 j = an individual source of emission,
 310 m = the total number of sources or emission from which TAC
 311 “i” may be emitted,
 312 BAC_{NC} = the benchmark ambient concentration for the
 313 noncarcinogenic effects of the TAC, as determined
 314 pursuant to Regulation 5.20 Section 4, and
 315 Maximum concentration = the concentration of a toxic air
 316 contaminant in the ambient air at the point of maximum
 317 concentration of the “i” emissions from all applicable “j”
 318 sources of emission, taking into account the applicable
 319 averaging time frame for the TAC, as determined
 320 pursuant to Regulation 5.22.

321 ³ The EAG_C Risk is in units of risk in one million.

322 2.9 The EA goals of sections 2.2, 2.5, and 2.8 applicable to the ambient air on industrial property
 323 shall be increased by a factor of 4.2 for the carcinogenic risks (EAG_C) and by a factor of 3
 324 for the noncarcinogenic risks (EAG_{NC}). The EA goals of sections 2.2, 2.5, and 2.8 applicable
 325 to the ambient air on public roadways shall be increased by a factor of 10 for the
 326 carcinogenic risks (EAG_C) and by a factor of 3 for the noncarcinogenic risks (EAG_{NC}).
 327 These increases in the EA goals shall have no effect on the EA goals applicable to any other
 328 location. These increases in the EA goals shall have no effect on any approved modified EA
 329 goal pursuant to section 2.6.

330 2.10 If the risk, as determined pursuant to the procedures in section 2.2, 2.5, or 2.8, resulting from
 331 the allowed emissions of TACs, was determined to be environmentally acceptable because
 332 of an increase in the EA goals pursuant to section 2.9 and the land use changes and is no
 333 longer either industrial property or a public roadway, then the owner or operator of the

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334 process or process equipment shall notify the District within 30 days of the change in land
335 use and shall comply with the procedural requirements of section 4.11, substituting the date
336 of notification by the owner or operator for the written notification by the District and
337 substituting the change in land use for change in the benchmark ambient concentration.

338 2.11 If a modification to an EA goal for a process or process equipment pursuant to section 2.3
339 or 2.6 is approved by the District, then the owner or operator shall periodically re-evaluate
340 T-BAT for the process or process equipment and submit to the District a demonstration,
341 meeting the provisions of section 2.3.2.1 or 2.6.2.1, whether the practices and measures
342 continue to constitute T-BAT. This requirement shall begin not more than 5 years, but not
343 less than 2 years, after District approval of the modification, and thereafter, at an initial time
344 frame and subsequent frequency to be determined by the District when approving the
345 modification. Upon approval of the modification, the requirement to re-evaluate T-BAT and
346 the schedule shall be an enforceable requirement of the applicable District permit for the
347 process and process equipment.

348 2.12 If the District determines, at any time after the approval of a modification to an EA goal for
349 a process or process equipment pursuant to section 2.3 or 2.6, that an element of T-BAT
350 could be implemented to either achieve compliance or achieve substantial progress towards
351 compliance with the EA goal, then the District shall require the implementation of that
352 element of T-BAT. The District shall notify the owner or operator of its determination and
353 the owner or operator shall submit to the District a compliance plan and schedule for
354 compliance with, or substantial progress towards, the EA goal to be achieved as soon as
355 practicable but not later than 36 months after notification by the District. Upon approval by
356 the District of the compliance plan and schedule, it shall be an enforceable requirement of
357 the applicable District permit for the process and process equipment included in the
358 compliance plan.

359 **SECTION 3 New or Modified Process or Process Equipment that May Emit a Toxic Air**
360 **Contaminant**

361 3.1 A construction permit required by the provisions of the Part 2 regulations for a new or
362 modified process or process equipment that may emit a TAC shall, except as exempted
363 pursuant to section 3.2, incorporate the following provisions:

364 3.1.1 The permit conditions shall contain an allowed emission standard for a Category 1 or 2
365 TAC from a Group 1 or 2 stationary source that has been demonstrated to comply with
366 the environmental acceptability goals of section 2.2, except as provided in sections 2.3
367 and 2.9,

368 3.1.2 The permit conditions shall contain an allowed emission standard for a Category 3 or 4
369 TAC from a Group 1 or 2 stationary source that meets one of the following:

370 3.1.2.1 The allowed emission standard has been demonstrated to comply with the
371 environmental acceptability goals of section 2.2 except as provided in sections 2.3
372 and 2.9, or

373 3.1.2.2 The allowed emission standard has been demonstrated to comply with Section 3 of
374 Regulation 5.01. If the owner or operator chooses this option for compliance, then,
375 prior to issuing the construction permit, the District shall provide an opportunity for
376 public review and comment, and

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- 377 3.1.3 If determined appropriate by the District, then the construction permit shall require the
378 owner or operator of the new or modified process or process equipment to install,
379 calibrate, operate, and maintain a continuous or intermittent emissions or parametric
380 monitoring system. Applicable records shall be maintained for a period of at least 5
381 years, made available to the District upon request, and submitted to the District as
382 specified in the construction permit.
- 383 3.2 Sections 3.1.1 and 3.1.2 shall not apply to a TAC emission that is a de minimis emission as
384 defined in Regulation 5.01 section 1.6.

SECTION 4 Demonstration of Environmental Acceptability and Compliance Plans for Permitted Stationary Sources

- 387 4.1 The owner or operator of a Group 1 or Group 2 stationary source shall determine, according
388 to the procedures in this regulation, whether the allowed emissions from all processes and
389 process equipment at the stationary source comply with the EA goals levels in sections 2.5.1
390 to 2.5.3. The determination pursuant to Section 4 is not required for a Category 2 TAC if
391 the owner or operator did not report the emission of that TAC to the EPA for the 2002
392 Toxics Release Inventory Program. When making this determination, the owner or operator
393 may include the effect on the allowed emissions of a process or process equipment pursuant
394 to a promulgated Clean Air Act §112(d) maximum achievable control technology (§112(d)
395 MACT) standard, provided that the change in allowed emissions and the compliance
396 deadline are identified. The owner or operator shall, for each process or process equipment,
397 submit to the District the results and the supporting documentation of the determination,
398 including, but not limited to, for any Tier 3 modeling, the printed summary, and for any Tier
399 4 modeling, the printed output summary and, in electronic format, the input and output files,
400 according to the following schedule:
- 401 4.1.1 For a Group 1 stationary source, the following:
- 402 4.1.1.1 For Category 1 TACs, by December 31, 2006~~2005~~, and
- 403 4.1.1.2 For Category 2 TACs, by March 31, 2008~~December 31, 2007~~, and
- 404 4.1.2 For a Group 2 stationary source, the following:
- 405 4.1.2.1 For Category 1 and 2 TACs, by September 30, 2008, and
- 406 4.1.2.2 For Category 2 TACs, by September 30, 2009.
- 407 4.1.3 For cause, the District may extend the compliance date of section 4.1.1.1 by up to 6
408 months. To be eligible for this extension, the owner or operator of the process or process
409 equipment shall submit all of the information that is available by the compliance date
410 and a written request to the District explaining why the extension is necessary and the
411 actions that were taken to minimize the needed extension.
- 412 4.2 If the District determines that the concentration of a TAC in the ambient air is, or may be,
413 greater than the EA goal in section 2.8.1 or 2.8.2 and a potentially responsible entity for the
414 emissions of the TAC is identified, then the Board may require the owner or operator of an
415 identified stationary source to submit the information identified in Section 54 of
416 Regulation 1.06 *Stationary Source Self Monitoring, Emissions Inventory Development, and*
417 *Reporting* and meet the requirements of sections 4.1, 4.4, and 4.5 of Regulation 5.21 on an
418 accelerated schedule. In this case, the District shall notify the owner or operator in writing
419 and shall specify the dates for complying with these requirements.

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- 420 4.3 If the allowed emissions, or, if the applicable permit does not contain an allowed emission
 421 standard, then the potential to emissions, of a TAC from a process or process equipment are
 422 determined, pursuant to section 4.1, to exceed one or more of the EA goals levels in
 423 sections 2.5.1 to 2.5.3, but the actual emissions do not exceed these EA goals levels, then the
 424 owner or operator may request, in writing, that the District revise the appropriate permit
 425 conditions to reduce the allowable emissions, or establish an allowable emission standard
 426 that is consistent with new source review requirements, specifying the new level of allowed
 427 emissions. Upon receipt by the District of the request, the new emission standard may be
 428 used for demonstrating environmental acceptability and shall be an enforceable requirement
 429 of the applicable permit for the affected process and process equipment.
- 430 4.4 If the allowed emissions of a TAC from a process or process equipment are determined,
 431 pursuant to the provisions of section 4.1, to exceed one or more both of the EA goals in
 432 section 2.5.1, and the District has not given approval to exceed those EA goals pursuant
 433 to section 2.6) or the EA standards in section 2.5.2 or 2.5.3, then the owner or operator shall
 434 submit to the District a compliance plan and schedule for compliance with the applicable EA
 435 goals level according to the following schedule:
- 436 4.4.1 For a Group 1 stationary source, as follows:
- 437 4.4.1.1 For Category 1 TACs, by June 30, 2007~~2006~~, and
 438 4.4.1.2 For Category 2 TACs, by March 31, 2009~~December 31, 2008~~, and
- 439 4.4.2 For a Group 2 stationary source, as follows:
- 440 4.4.2.1 For Category ies 1 and 2 TACs, by September 30, 2009, and
 441 4.4.2.2 For Category 2 TACs, by September 30, 2010.
- 442 4.4.3 For cause, the District may extend the compliance date of section 4.4.1.1 by up to 6
 443 months. To be eligible for this extension, the owner or operator of the process or process
 444 equipment shall submit all of the information that is available by the compliance date
 445 and a written request to the District explaining why the extension is necessary and the
 446 actions that were taken to minimize the needed extension.
- 447 4.5 A compliance plan required pursuant to section 4.4 shall provide for compliance as soon as
 448 practicable but no later than the following dates:
- 449 4.5.1 For a Group 1 stationary source, the following:
- 450 4.5.1.1 For Category 1 TACs, December 31, 2008~~2007~~, and
 451 4.5.1.2 For Category 2 TACs, March 31, 2010~~December 31, 2009~~, and
- 452 4.5.2 For a Group 2 stationary source, the following:
- 453 4.5.2.1 For Category ies 1 and 2 TACs, September 30, 2010, and
 454 4.5.2.2 For Category 2 TACs, September 30, 2011.
- 455 4.5.3 For cause, the District may extend the compliance date of section 4.5.1.1 by up to 6
 456 months and the compliance date in sections 4.5.1.2, and 4.5.2.1, and 4.5.2.2 by up to 12
 457 months. To be eligible for this extension, the owner or operator of the process or process
 458 equipment shall complete as much of the compliance plan as can be done by the
 459 applicable compliance date and submit a written request to the District explaining why
 460 the extension is necessary and the actions that were taken to minimize the needed
 461 extension.
- 462 4.5.4 The District may extend the applicable compliance date of section 4.5.1 or 4.5.2 that
 463 would otherwise be applicable to a process or process equipment that is subject to a

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- 464 §112(d) MACT standard, provided that the §112(d) MACT standard is promulgated at
 465 the time that the compliance plan is due pursuant to section 4.4. If the compliance date
 466 is extended, then the owner or operator shall timely and fully comply with the
 467 requirements of the §112(d) MACT standard. An extension of the compliance date for
 468 the process or process equipment subject to this §112(d) MACT standard does not affect
 469 the applicable compliance date of section 4.5.1 or 4.5.2 for any other process or process
 470 equipment at the stationary source.
- 471 4.6 A compliance plan and schedule pursuant to the provisions of section 4.4 shall, at a
 472 minimum, contain the following milestone steps and dates:
- 473 4.6.1 Perform an engineering analysis of potential solutions,
 474 4.6.2 Prepare a bid package for vendors for equipment,
 475 4.6.3 Submit to the District a construction permit application for new equipment and any
 476 required modifications,
 477 4.6.4 Select a vendor and issue a purchase order for equipment,
 478 4.6.5 Commence construction,
 479 4.6.6 Complete construction,
 480 4.6.7 Prepare and submit a proposed compliance testing protocol to the District for approval,
 481 4.6.8 Perform the required compliance testing,
 482 4.6.9 Prepare and submit a final compliance testing report to the District for approval, and
 483 4.6.10 Submit quarterly progress reports.
- 484 4.7 After providing an opportunity for public review and comment, the District may approve a
 485 compliance plan and schedule from a stationary source and the approved compliance plan
 486 and schedule shall be an enforceable requirement of the applicable District permit for the
 487 process and process equipment included in the compliance plan.
- 488 4.8 If the District determines, based upon the information submitted to the District pursuant to
 489 section 4.1 or other information, that an EA goal in section 2.8.1 or 2.8.2, taking into account
 490 a modification of an EA goal approved by the District pursuant to section 2.6, would be
 491 exceeded, then the following process shall be followed:
- 492 4.8.1 The District shall prepare a proposed Risk Reduction Plan (Plan). The Plan shall set
 493 forth the information relied upon in making the determination, the assumptions and
 494 calculations in support of the Plan, and the analysis and rationale from section 4.8.2. The
 495 Plan shall specify the additional reductions from each stationary source contributing to
 496 the exceedance of the EA goal that are appropriate necessary to either achieve
 497 compliance with the applicable EA goal or reduce the risk to a level not to exceed a
 498 Hazard Quotient, pursuant to section 2.8.1, of 3.0, or a risk, pursuant to section 2.8.2, of
 499 100,
- 500 4.8.2 In determining the additional reductions, the District shall consider the extent to which
 501 each contributing process and process equipment has applied T-BAT, the other factors
 502 to be considered in sections 2.3 and 2.6, and other factors necessary and appropriate
 503 upon which to base a fair, equitable, and effective apportionment of the responsibility
 504 for additional reductions,
- 505 ~~4.8.3 The Board shall provide an opportunity for public review and comment on the proposed~~
 506 ~~Plan.~~
- 507 4.8.3 Following the opportunity for public review and comment, the District Board shall take

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- 508 action on the proposed Plan. District Board action may include, but is not limited to,
509 approval, modification and approval, or denial of the proposed Plan,
510 4.8.4 Within 180 days of District Board approval of a Plan, the owner or operator of each
511 affected stationary source shall submit a compliance plan and schedule that shall, at a
512 minimum, contain the milestone steps and dates identified in section 4.6. Compliance
513 with the required reductions identified in the approved Plan shall be achieved as soon as
514 practicable but no later than 18 months after District Board approval of the compliance
515 plan and schedule,
516 4.8.5 After providing an opportunity for public review and comment, the District Board may
517 approve the compliance plan and schedule from the stationary source, and
518 4.8.6 Any more stringent emission standard, and the schedule for complying with this
519 emission standard, shall be an enforceable requirement of the applicable District permit
520 for the affected process and process equipment.
521 4.9 In the alternative to the provisions of sections 4.1.2, 4.4.2, and 4.5.2 applicable to Group 2
522 stationary sources, the Board may, by regulation, establish specific requirements for a class
523 of stationary sources. If the Board adopts a new regulation or amends an existing regulation
524 in lieu of requiring compliance with these provisions by individual stationary sources in that
525 class, then the District shall notify the owner or operator of each stationary source in that
526 class that compliance with these provisions is not required.
527 4.10 If the District determines that the presence of 2 or more TACs, at concentrations that comply
528 with the EA goals levels in sections 2.2, 2.5, and 2.8, would result in a synergistic or additive
529 toxicological effect that may adversely affect human health, or that there is human exposure
530 from routes of exposure other than direct inhalation, then the District shall prepare a
531 proposed Risk Reduction Plan and the procedures specified in section 4.8 shall be followed.
532 Any more stringent emission standard, and a schedule for complying with this emission
533 standard, shall be an enforceable requirement of the applicable District permit for the
534 affected process and process equipment.
535 4.11 Upon written notification by the District that a benchmark ambient concentration established
536 pursuant to Regulation 5.20 for a TAC that is, or may be, emitted by the stationary source
537 has become more stringent, the owner or operator of the stationary source shall, within 6
538 months of this notification, make a revised determination, according to the procedures in
539 Regulation 5.21, whether the allowed emissions from the stationary source comply with the
540 EA goals levels in section 2.5 based upon the revised benchmark ambient concentration and
541 submit the results to the District. If one or more of these EA goals levels is exceeded, then
542 the owner or operator shall, within 18 months of the initial notification, submit a compliance
543 plan and schedule meeting the provisions of section 4.6, providing for compliance as soon
544 as practicable but no later than 36 months after the initial notification. Upon approval by the
545 District of the compliance plan and schedule, the approved compliance plan and schedule
546 shall be an enforceable requirement of the applicable District permit for the process and
547 process equipment included in the compliance plan.
548 4.12 If a benchmark ambient concentration established pursuant to Regulation 5.20 for a TAC
549 becomes less stringent, the owner or operator may request that an emission standard based
550 upon the more stringent benchmark ambient concentration be revised to reflect compliance
551 with the EA goals levels based upon the revised benchmark ambient concentration. The

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552 District may approve the request and revise the emission standard, provided that the revision
553 complies with all other applicable requirements and the effectiveness of an existing
554 emissions control measure is not reduced or eliminated.

555 4.13 If the District determines that the concentration of a TAC in the ambient air resulting from
556 any TAC emission of a stationary source is, or may be, greater than an EA goal level in
557 section 2.5 or 2.8, then the District may require emission reductions of that TAC. In this
558 case, the written notification shall include the date for submittal of a compliance plan and
559 schedule to the District and the date for compliance with the EA goals~~levels~~. Any more
560 stringent emission standard and the compliance schedule shall be an enforceable
561 requirement of the applicable District permit for the affected process and process equipment.

562 4.14 If the owner or operator submits a revised demonstration of compliance with the EA goals
563 levels in sections 2.2 or 2.5, based upon the use of an EPA-approved dispersion model
564 update or replacement model, that justifies a change to an applicable emission standard for
565 the process or process equipment, then the District may revise the permit emission standard
566 accordingly, consistent with applicable new source review requirements.

567 Adopted v1/_____ ; effective _____.