

1 **REGULATION 1.07 Excess Emissions During Startups, Shutdowns, and Malfunctions**

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 provides that~~ the Air Pollution Control Board to
7 ~~adopt may make~~ and enforce all needful orders, rules, and regulations necessary or proper to
8 accomplish the purposes of KRS Chapter 77. This regulation establishes the notification, reporting,
9 and operational requirements for the owner or operator of a stationary source when excess emissions
10 occur as a result of a startup, shutdown, or malfunction.

11 **SECTION 1 Definitions**

12 Terms used in this regulation that are not defined in this regulation shall have the meaning given to
13 them in Regulation 1.02 *Definitions*.

14 ~~1.1 “Bypass” means the intentional diversion of air contaminants from air pollution control~~
15 ~~equipment or process equipment that normally reduces the emission of the air contaminants.~~

16 ~~1.2 “Excess emissions” means emissions that exceed an applicable emission standard. If there~~
17 ~~is not an applicable emission standard for a toxic air contaminant established pursuant to the~~
18 ~~requirements of Regulation 5.21 *Environmental Acceptability for Toxic Air Contaminants*~~
19 ~~(an applicable emissions standard would include a surrogate emission standard, such as~~
20 ~~volatile organic compounds that would include that toxic air contaminant, for which~~
21 ~~environmental acceptability has been demonstrated pursuant to Regulation 5.21), then, for~~
22 ~~the purpose of the notification and reporting requirements of this regulation, excess~~
23 ~~emissions shall also include an appreciable increase in the emissions of a toxic air~~
24 ~~contaminant above the routine level of emissions that results from a startup, shutdown, or~~
25 ~~malfunction.~~

26 **SECTION 2 Excess Emissions**

27 2.1 The owner or operator of a process or process equipment has a general duty to ensure that
28 the emissions from the process or process equipment are in compliance with all emission
29 standards at all times. This includes starting up and shutting down the process or process
30 equipment in a manner that the emissions are in compliance with all applicable emission
31 standards and, consistent with safe operating procedures, stopping input feed to the process
32 or process equipment and shutting down the process or process equipment if excess
33 emissions would likely result from a malfunction.

34 2.2 Excess emissions from a process or process equipment due to startup, shutdown, or
35 malfunction shall be deemed in violation of the applicable emission standard.

36 2.3 In determining the appropriate enforcement action for excess emissions, the District may
37 consider the following factors:

38 2.3.1 The duration and frequency of excess emissions during startups, shutdowns,
39 malfunctions,

40 2.3.2 Whether the excess emissions could have been prevented through careful planning and

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- 41 design,
- 42 2.3.3 Whether the excess emissions are part of a recurring pattern indicative of inadequate
- 43 design, operation, or maintenance,
- 44 2.3.4 Whether the process or process equipment was, at all times, operated in a manner
- 45 consistent with good practices for minimizing emissions,
- 46 2.3.5 For a malfunction, whether the owner or operator, consistent with safe operating
- 47 procedures, stopped input feed to the process or process equipment and shut down the
- 48 process or process equipment as soon as possible,
- 49 2.3.6 For excess emissions during a startup or shutdown, the extent to which the owner or
- 50 operator complied with the provisions of section 3.6,
- 51 2.3.7 For excess emissions during a malfunction, the extent to which the owner or operator
- 52 complied with the provisions of section 4.4, and
- 53 2.3.8 For a malfunction, whether the excess emissions were the result of an unavoidable
- 54 malfunction. To be deemed an unavoidable malfunction, the owner or operator of the
- 55 process or process equipment shall demonstrate, through properly signed,
- 56 contemporaneous operating logs or other relevant evidence, all of the following:
- 57 2.3.8.1 The excess emissions were the result of an identified sudden and reasonably
- 58 unforeseeable event beyond the control of the owner or operator, including forces of
- 59 nature,
- 60 2.3.8.2 Corrective action to restore normal operation of the process or process equipment
- 61 was required,
- 62 2.3.8.3 The excess emissions were not caused by improperly designed equipment, lack of
- 63 preventive maintenance, careless or improper operation, or operator error, and
- 64 2.3.8.4 The process or process equipment was, at the time of the malfunction, being properly
- 65 operated, and:
- 66 2.3.9 Whether the excess emissions exceeded a concentration in the ambient air that could
- 67 reasonably have caused an acute noncancer effect.
- 68 2.4 Nothing in this regulation shall be construed to restrict the District's discretion to take, at any
- 69 time, appropriate enforcement action under KRS Chapter 77 if, upon information supplied
- 70 to the District pursuant to this regulation or otherwise available to the District, the District
- 71 determines that this action is necessary to protect public health or welfare. Further, nothing
- 72 in this regulation shall be construed to restrict any person from seeking injunctive relief from
- 73 an excess emission.
- 74 2.5 The owner or operator of a process or process equipment for which there are excess
- 75 emissions shall comply with the following requirements, as applicable:
- 76 2.5.1 For startups and shutdowns, Section 3, and
- 77 2.5.2 For malfunctions, Section 4.
- 78 2.6 If a notification or report to the District is required pursuant to this regulation to be in
- 79 writing, then compliance with the deadline shall be established as follows:
- 80 2.6.1 If the notification or report is sent via mail, then the date and time as postmarked by the
- 81 U.S. Postal Service,
- 82 2.6.2 If the notification or report is sent via facsimile, then the date and time received by the
- 83 District as indicated on the printed copy received by the District,
- 84 2.6.3 If the notification or report is sent via electronic mail, then the date and time identified

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- 85 as sent by the electronic mail received by the District, and
86 2.6.4 If the notification or report is hand-delivered to the District's office, then the date and
87 time received by the District as stamped by the District.
88 2.7 The owner or operator of a process or process equipment that is subject to a notification or
89 reporting requirement pursuant to this regulation may request, and the District may, for
90 cause, approve an extension of the deadline for submitting the information for one or more
91 elements of the notification or report. The owner or operator may make this request by
92 telephone, facsimile or electronic mail. If the request is made by telephone, then the owner
93 or operator shall submit, by the end of that day, a confirmation written request by facsimile,
94 electronic mail, or mail.
95 2.8 Notwithstanding a requirement in these regulations for certification of a submitted report,
96 the notifications required by sections 3.1, 3.2, 3.3, 4.1, 4.3, and 4.6 are not required to be
97 certified by a "responsible official" as defined in Regulation 2.16 Title V Operating Permits
98 section 1.35. The reports required by sections 3.7, 3.8, 4.5, and 4.7 are required to be
99 certified by a "responsible official."

100 SECTION 3 Startup or Shutdown

- 101 3.1 If excess emissions during any planned startup or shutdown are expected to occur, then the
102 owner or operator of the process or process equipment shall notify the District in writing no
103 later than 3 days before the planned startup or shutdown.
104 3.2 If an unplanned startup or shutdown during which excess emissions are expected to occur
105 is necessitated by events, other than a malfunction, that the owner or operator could not
106 reasonably have foreseen 3 days before the startup or shutdown, then the notification shall
107 be given to the District by telephone, facsimile, or electronic mail within 1 hour after the
108 decision to start up or shut down the process or process equipment was made, and, if the
109 notification is given by telephone, in writing as promptly as possible, but no later than 24
110 hours after the end of the day during which that decision was made.
111 3.3 If an unplanned startup or shutdown pursuant to section 3.2 begins outside of the District's
112 regular business hours (8:00 a.m. to 5:00 p.m. on Monday to Friday, not including holidays)
113 and the initial written notification pursuant to section 3.2 was not available to the District
114 during regular business hours, then, in addition to that written notification, the owner or
115 operator of the process or process equipment shall leave a message on the District's main
116 telephone line [(502) 574-6000] containing the information required by sections 3.5.1, 3.5.3,
117 3.5.4, and 3.5.6, and the name and telephone number of a contact person at the stationary
118 source.
119 3.4 An unplanned startup or shutdown during which excess emissions are expected to occur that
120 is necessitated by a malfunction shall be treated as part of the malfunction pursuant to
121 Section 4.
122 3.5 The written planned or unplanned startup or shutdown initial notification pursuant to
123 section 3.1 or 3.2 shall include the following information:
124 3.5.1 The name and location of the stationary source,
125 3.5.2 The name, address, telephone number, and electronic mail address of the person
126 responsible for providing the information required by section 3.5,
127 3.5.3 The process or process equipment involved in the startup or shutdown,

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- 128 3.5.4 The scheduled date and time for the beginning of the startup or shutdown process, the
129 expected duration of the startup or shutdown process, and the expected time period
130 during which excess emissions are expected to occur,
- 131 3.5.5 The physical and chemical composition and estimated quantity and concentration of
132 excess emissions, or equivalent information that relates to compliance with the emissions
133 standard, such as emissions monitoring data or results of an EPA-approved test method,
134 for each air contaminant,
- 135 3.5.6 The reason for and necessity of the startup or shutdown,
- 136 3.5.7 The reason the startup or shutdown could not be accomplished without causing excess
137 emissions, and
- 138 3.5.8 An explanation as to how the provisions of section 3.6 will be met.
- 139 3.6 If excess emissions during a startup or shutdown of a process or process equipment are
140 expected to occur, then the owner or operator of the process or process equipment shall
141 comply with all of the following:
- 142 3.6.1 All Reasonable, available, and practicable emission reduction measures, including
143 process equipment design, operating procedures, and pollution prevention measures,
144 shall be used to prevent or minimize excess emissions,
- 145 3.6.2 The frequency and duration of operation of the process or process equipment in the
146 startup or shutdown mode shall be minimized to the maximum extent practicable and the
147 duration of operation of the process or process equipment in the startup or shutdown
148 mode shall be reduced as much as necessary to minimize excess emissions,
- 149 3.6.3 A bypass of any related control equipment shall not occur unless necessary to prevent
150 loss of life, personal injury, or severe property damage, and the extent and duration of
151 any bypass shall be reduced as much as necessary to minimize excess
152 emissions minimized to the maximum extent practicable, and
- 153 3.6.4 All emission and parametric monitoring systems for the process or process equipment
154 shall be operated unless technically infeasible.
- 155 3.7 If a person has notified the District pursuant to section 3.1, 3.2, or 3.3 but no excess emission
156 occurred as the result of the startup or shutdown, then the owner or operator of the process
157 or process equipment shall send a written report to the District that includes the name and
158 telephone number of a contact person at the stationary source and the information required
159 by sections 3.8.1, 3.8.3, and 3.8.4, except indicating that no excess emission occurred. The
160 written report may be sent by mail, facsimile, or electronic mail, and shall be sent no later
161 than 5 the end of the next working days following the completion of the startup or shutdown.
- 162 3.8 No later than 5 the end of the next working days following the completion of a startup or
163 shutdown during which excess emissions occurred, whether or not initial notification of the
164 startup or shutdown pursuant to section 3.1, 3.2, or 3.3 was made to the District, the owner
165 or operator of the process or process equipment shall send a written report to the District that
166 includes the following information:
- 167 3.8.1 The name and location of the stationary source,
- 168 3.8.2 The name, address, telephone number, and electronic mail address of the person
169 responsible for providing the information required by section 3.8,
- 170 3.8.3 The process or process equipment involved in the startup or shutdown,
- 171 3.8.4 The actual date and time of the beginning of the startup or shutdown process, the actual

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- 172 duration of the startup or shutdown process, and the actual time period during which
173 excess emissions occurred,
- 174 3.8.5 The physical and chemical composition and calculated quantity and concentration of
175 excess emissions, or equivalent information that relates to compliance with the emissions
176 standard, such as emissions monitoring data or results of an EPA-approved test method,
177 for each air contaminant, including a description of the method used for calculating
178 excess emissions and an identification of the applicable emission standard that was
179 exceeded,
- 180 3.8.6 An explanation as to how each provision of section 3.6 was met, and
- 181 3.8.7 The frequency of excess emissions during startups or shutdowns during the previous 2
182 years.
- 183 3.9 The District may require the owner or operator of a process or process equipment for which
184 startups or shutdowns have resulted in repeated excess emissions to develop and submit a
185 program to eliminate or minimize excess emissions. If the District determines that a program
186 is appropriate, then the District shall notify the owner or operator in writing, specify the
187 information that is required in the program, and establish a deadline for submittal of the
188 program. Upon District approval, the owner or operator shall implement the approved
189 program and the approved program shall be an enforceable requirement of the applicable
190 District permit for the process and process equipment included in the program.

191 SECTION 4 Malfunction

- 192 4.1 If excess emissions from a process or process equipment resulting from a malfunction, or
193 from an unplanned unforeseen startup or shutdown necessitated by a malfunction, occur or
194 are likely to occur, the owner or operator of the process or process equipment shall, as
195 promptly as possible, but no later than 1 hour following the start of the malfunction, or, if a
196 call to the 911 system was made, then no later than 2 hours following the start of the
197 malfunction, notify the District by telephone, facsimile, or electronic mail.
- 198 4.2 The initial notification of the malfunction pursuant to section 4.1 shall include the following
199 information:
- 200 4.2.1 The name and location of the stationary source,
- 201 4.2.2 The name, address, telephone number, and electronic mail address of the person
202 responsible for providing the information required by section 4.2,
- 203 4.2.3 The process or process equipment involved in the malfunction,
- 204 4.2.4 The date and time of the beginning of the malfunction, the estimated time before,
205 consistent with safe operating procedures, input feed to the process or process equipment
206 will be stopped and the process or process equipment shut down or the process or process
207 equipment is returned to normal operation, whichever is earlier (the excess emissions
208 end), and the estimated time period during which excess emissions are likely to occur,
- 209 4.2.5 To the extent that it can reasonably be determined within the context of the
210 circumstances, the physical and chemical composition and estimated quantity and
211 concentration of excess emissions, or equivalent information that relates to compliance
212 with the emissions standard, such as emissions monitoring data or results of an EPA-
213 approved test method, for each air contaminant,
- 214 4.2.6 If known or suspected, the likely cause of the malfunction, and

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- 215 4.2.7 If applicable and known, the reason the processes or process equipment will not be shut
216 down immediately, consistent with safe operating procedures.
- 217 4.3 If the initial notification pursuant to section 4.1 is required to be made at a time outside of
218 the District's regular business hours (8:00 a.m. to 5:00 p.m. on Monday to Friday, not
219 counting holidays), then, in addition to that initial notification, the owner or operator of the
220 process or process equipment shall leave a message on the District's main telephone line
221 [(502) 574-6000] containing the information required by sections 4.2.1, 4.2.3, 4.2.4, 4.2.6,
222 and 4.2.7, and the name and telephone number of a contact person at the stationary source.
- 223 4.4 If excess emissions during a malfunction of a process or process equipment occur or are
224 likely to occur, then the owner or operator of the process or process equipment shall comply
225 with all of the following:
- 226 4.4.1 All Reasonable, available, and practicable emission reduction measures, including
227 process equipment design, operating procedures, pollution prevention measures, use of
228 off-shift labor and overtime, and, consistent with safe operating procedures, immediately
229 stopping input feed to the process or process equipment and shutting down the process
230 or process equipment, shall be used to prevent or minimize excess emissions,
- 231 4.4.2 The frequency and duration of operation of the process or process equipment in a
232 malfunction mode shall be minimized to the maximum extent practicable and the
233 duration of operation of the process or process equipment in a malfunction mode shall
234 be reduced as much as necessary to minimize excess emissions,
- 235 4.4.3 A bypass of any related control equipment shall not occur unless necessary to prevent
236 loss of life, personal injury, or severe property damage, and the extent and duration of
237 any bypass shall be reduced as much as necessary to minimize excess
238 emissions minimized to the maximum extent practicable, and
- 239 4.4.4 All emission and parametric monitoring systems for the process or process equipment
240 shall be operated unless technically infeasible.
- 241 4.5 If a person has notified the District pursuant to section 4.1 or 4.3 but no excess emission
242 occurred as the result of the malfunction, then the owner or operator of the process or process
243 equipment shall send a written report to the District that includes the name and telephone
244 number of a contact person at the stationary source, the information required by sections
245 4.6.1, 4.6.3, and 4.6.4, and the statement that no excess emission occurred. The written
246 report may be sent by mail, facsimile, or electronic mail, and shall be sent no later than 5 the
247 end of the next working days after the input feed to the process or process equipment is
248 stopped and the process or process equipment is shut down or the process or process
249 equipment is returned to normal operation after the occurrence of a malfunction, whichever
250 is earlier.
- 251 4.6 As soon as reasonably possible, but no later than 24 hours after the excess emissions ended,
252 the owner or operator of the process or process equipment shall notify the District by
253 telephone, facsimile, or electronic mail. If this notification is made by telephone, the owner
254 or operator shall provide written notification by facsimile or electronic mail no later than 4
255 hours after the excess emissions ended by the end of that day. The written notification of the
256 end of the malfunction shall include the following information:
- 257 4.6.1 The name and location of the stationary source,
- 258 4.6.2 The name, address, telephone number, and electronic mail address of the person

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- 259 responsible for providing the information required by section 4.6,
260 4.6.3 The process or process equipment involved in the malfunction,
261 4.6.4 The date and time that the excess emissions ended, and
262 4.6.5 If the initial notification to the District pursuant to section 4.6 was made by telephone,
263 then the time that the telephone notification was made.
264 4.7 No later than 15 calendar days after the excess emissions ended, the owner or operator of the
265 process or process equipment shall send a written report to the District that includes the
266 following information:
267 4.7.1 The name and location of the stationary source,
268 4.7.2 The name, address, telephone number, and electronic mail address of the person
269 responsible for providing the information required by section 4.7,
270 4.7.3 The process or process equipment involved in the malfunction,
271 4.7.4 Confirmation of the actual date and time that the excess emissions ended,
272 4.7.5 The physical and chemical composition and calculated quantity and concentration of
273 excess emissions, or equivalent information that relates to compliance with the emissions
274 standard, such as emissions monitoring data or results of an EPA-approved test method,
275 for each air contaminant, including a description of the method used for calculating
276 excess emissions and an identification of the applicable emission standard that was
277 exceeded,
278 4.7.6 An explanation as to how each provision of section 4.4 was met, and
279 4.8 No later than 60 days after the excess emissions ended, the owner operator of the process or
280 process equipment shall send a written report to the District that includes the following
281 information:
282 4.7.8.71 An analysis of the cause of the malfunction and the steps that will be taken to prevent or
283 minimize similar occurrences in the future, and
284 4.7.8.82 The frequency of excess emissions resulting from malfunctions during the previous 2
285 years of the same or similar process or process equipment or that occurred because of the
286 same or similar cause, and:
287 4.7.97 Any additional information requested by the District.
288 4.8 Upon written request from the owner or operator of a process or process equipment required
289 to submit a report pursuant to section 4.7 for an extension of the due date to submit the
290 information required by section 4.7.7, the District may extend the due date by up to 45 days
291 from the original due date.

292 SECTION 5 Extended Malfunction

- 293 5.1 If correcting the excess emissions from a process or process equipment resulting from a
294 malfunction is anticipated to exceed 30 days and the owner or operator does not shut down
295 the process or process equipment, then the owner or operator shall, as soon as known, but
296 no later than within 7 seven days after of the beginning of the excess emissions, request, in
297 writing, that the District initiate the process for the adoption of a Board Order to allow
298 continued operation with excess emissions. The This request by the owner or operator of the
299 process or process equipment shall include a written program outlining a time schedule and
300 corrective actions to abate the excess emissions. The time schedule may include a period for
301 engineering review and analysis of the cause of the excess emissions and design of

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- 302 modifications to effect compliance with the emission standards. The owner or operator shall,
303 in a timely manner, submit all information requested by the District.
304 5.2 Any resulting Board Order shall include a time schedule and required actions to comply with
305 the emission standards and the appropriate penalty for the excess emissions.
- 306 Adopted v1/4-19-72; effective 4-19-72; amended v2/9-1-76, v3/6-13-79, v4/11-16-83, v5/12-15-93,
307 v6/6-21-95, v7/1-17-96.