

**Louisville Metro Air Pollution Control District  
Preliminary  
Regulatory Impact Assessment**

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**Regulation 5.11**

*Standards of Performance for Existing Processes and  
Process Equipment Emitting Toxic Air Pollutants*

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**Regulation 5.12**

*Standards of Performance for New or Modified Processes  
and Process Equipment Emitting Toxic Air Pollutants*

**Purpose of the Draft Proposed Action:**

The purpose of the draft proposed action is to repeal emission standards established under Regulations 5.11 and 5.12 for toxic air pollutants (TAPs) that are not toxic air contaminant (TACs) listed in Regulation 5.23. Presently, these regulations only apply as the basis for permit conditions issued prior to July 1, 2005. Neither regulation applies to any process or process equipment constructed or modified after July 1, 2005.

Sources that have processes or process equipment subject to STAR are identified in proposed Regulation 5.00 sections 1.16 and 1.17 (currently Regulation 5.01 sections 1.8 and 1.9) as Group 1 and Group 2 stationary sources. These "Groups" are sources permitted under District Regulation 2.16 (Group 1 sources) or 2.17 (Group 2 sources). Permit standards for Group 1 and Group 2 sources relating to TAPs that are TACs listed in Regulation 5.23 shall remain in effect until the permitted source demonstrates the environmental acceptability of its TAC emissions pursuant to Regulation 5.21. TAPs that are TACs listed in Regulation 5.23 are chemicals of local concern, and it is appropriate that they remain subject to regulation under Regulation 5.11 or 5.12 until evaluated under the more stringent STAR Program.

In proposed Regulation 5.00 (Regulation 1.02), a TAC is broadly defined as "any air contaminant for which there is no national ambient air quality standard and that is, or may become, harmful to public health or the environment when present in sufficient quantities and duration in the ambient air." A TAP is "a substance listed in either" of two former Kentucky regulations, 401 KAR 63:021 (11-11-86) or 401 KAR 63:022 (11-11-86). In effect, all TAPs that "may become harmful" are also TACs, even if not specifically listed in Regulation 5.23. As a result, any TAP (or in general anything emitted into the air) may be evaluated by the District pursuant to its authority under KRS 77.155 and the general duty clause in Regulation 5.01, which states: "The owner or operator of a process or process equipment from which a toxic air contaminant is or may be emitted shall provide the utmost care and consideration to prevent the potential harmful effects of the emissions resulting from the process or process equipment. A person shall not allow any process or process equipment to emit a toxic air contaminant in a quantity or duration as to be harmful to the health and welfare of humans, animals, and plants."

Emissions of TACs from smaller “area” sources not otherwise subject to STAR are being addressed on a source-wide basis pursuant to the STAR Regulation 5.30 Report and Plan of Action (July 2007) (the STAR 5.30 RAPA) and the federal area source maximum achievable control technology (MACT) standards. Consequently, all TAPs may be scrutinized and controlled under STAR or other District or federal regulations.

**Estimated Costs and Savings:**

There are no estimated costs associated with the proposed draft action. Both the District and regulated stationary sources will benefit from increased permitting efficiency gained by eliminating unnecessary, often duplicative, reporting and review.

Repealing the emission standards for those TAPs that are not listed as TACs in Regulation 5.23 will not adversely affect air quality. Emissions of TAPs from new or modified stationary sources are already excluded from Regulation 5.11 or 5.12 because they are subject to review under STAR. Existing permit conditions relating to TAPs that are not TACs will remain in effect until re-evaluated at permit renewal for Group 1 and 2 sources. The proposed action does not affect emission standards established under other District regulations, such as those in Parts 6 and 7 that require reasonably available control technology (RACT) or best available control technology (BACT) for emissions of criteria pollutants from new and existing sources.

**Feasibility of All Alternatives:**

The District considered the alternative of not taking this action, but determined that the action is appropriate for the following reasons:

Regulations 5.11 and 5.12 are based on 401 KAR 63:021 and 401 KAR 63:022 respectively, as enacted by the Kentucky Natural Resources and Environmental Protection Cabinet (the Cabinet) on November 11, 1986, to control emissions of certain air pollutants through the implementation of RACT for existing processes or process equipment and BACT for new or modified processes or process equipment. On January 19, 1999, the Cabinet repealed 401 KAR 63:022 and replaced the language of 63:021 with a savings clause for existing permit conditions.

The Cabinet based its actions on a finding that the regulations were ineffective and inefficient. *Statement of Consideration Relating to: 401 KAR 63:021, 401 KAR 63:024*, November 12, 1998 (SOC), Response to Comment 4. Because the regulations were ineffective, the Cabinet determined that “[n]o purpose would be served if the cabinet continued to apply the provisions of these regulations. The cabinet’s authority pursuant to 401 KAR 63:020 provides a greater level of protection than either of these regulations.” SOC, Response to Comment 7. Moreover, the Cabinet determined that interim controls were not necessary because “[e]nforcement of the provisions of the 1990 Clean Air Act Amendments will continue to provide significant reductions in air toxic emissions.” SOC, Response to Comment 5. As a result, the Cabinet began applying the general duty clause in 401 KAR 63:020 on a case-by-case basis, regardless of a source’s compliance with other existing standards, to prohibit emissions of hazardous or toxic substances in a duration or amount which would pose a threat to humans, plants or animals.

SOC, Response to Comment 3. At the same time, the Cabinet announced its intention to develop a regulatory program to address emissions of air toxics. SOC, Response to Comment 8.

Since 1999, the Cabinet has proposed, but not adopted, a risk-based state air toxics program. *See* 401 KAR Chapter 64, proposed July 2007. In its 2007 proposal, the Cabinet concentrated on 33 hazardous air pollutants; excluded sources covered by a MACT standard or residual risk rule; and retained a general duty clause. *Id.* The proposal also included repealing the “out-dated” 401 KAR 63:021 and replacing it with the proposed 401 KAR Chapter 64. Notice of Public Hearing, Division for Air Quality, Proposed Air Quality Regulations (June 2007). To date, the Cabinet has not acted on its 2007 proposal or drafted an alternative.

Consequently, the District has determined that retaining emission standards for TAPs that are not listed as TACs is no longer warranted, particularly given that new or modified sources have been excluded from the regulations since 2005. Unlike the Cabinet, the District has adopted and is implementing a stringent risk-based air toxics program to address local air toxic emissions. The District has also retained, in Regulation 5.01, a general duty clause that mirrors the Cabinet’s in 401 KAR 63:020, to address emissions of any TAC from any source.<sup>1</sup> To date, the largest sources regulated under STAR, the Group 1/Title V sources, have greatly reduced their emissions of the chemicals of greatest local concern, the Category 1 TACs. The District is reviewing environmental acceptability (EA) demonstrations for Category 2 TACs emitted by these same sources, as well as Category 1 TACs from Group 2 sources. In the meantime, since July 1, 2005, the District has reviewed every construction permit application from a Group 1 or 2 source for compliance with STAR. The District also continues to implement programs and activities recommended in the STAR 5.30 RAPA to address the risk from ambient concentrations of TACs from minor stationary sources, area sources, nonroad mobile sources, and mobile sources. Meanwhile, the U.S. EPA has implemented National Emission Standards for Hazardous Air Pollutants (NESHAPs) and MACT standards for nearly 170 source types and has begun residual risk evaluations for stationary and area sources as required under the 1990 Clean Air Act Amendments (specifically 42 USC 7412(d) and (f)). These efforts by EPA have resulted in further reductions in air toxic emissions through the MACT standards for both major (Title V) and area stationary sources.

#### **Comparison with Any Minimum or Uniform Standards:**

There are no minimum or uniform standards applicable this draft proposed action.

#### **Report on Public Outreach Efforts:**

This draft proposal was part of a package of proposed amendments to the STAR regulations that was released for informal external review on March 17, 2010, and sent to: all members of the

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<sup>1</sup> 401 KAR 63:020, the Cabinet’s general duty clause, requires that “[p]ersons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet.”

## 5.11 and 5.12/External

2009 STAR Advisory Group; all persons who have requested to be informed of proposed changes to STAR regulations; all persons who have requested to be notified of proposed changes to any District regulations; EPA Region 4; and the Kentucky Division for Air Quality. The District received written informal comments on this draft proposal and is responding to those in a separate Comment/Response document. The public will have an opportunity to comment at a meeting of the appropriate committee of the Air Pollution Control Board, during the formal public comment period, and at a public hearing prior to consideration by the full Board.