

Regulation 5.30 Plan of Action Outline

Introduction

The STAR program for area and minor sources (regulation 5.30) represents the newest phase in Louisville's efforts to improve its air quality. This program builds on the work of several extensive monitoring efforts, including the West Jefferson County Community Task Force's 2003 West Louisville Air Toxics Risk Assessment, which identified 18 chemicals of concern for the Louisville Metro area. The Air Pollution Control District developed the STAR program for stationary sources in response to this risk, and the adoption of Regulation 5.30 recognizes the further risk posed by additional sources. In addition to the Air Toxics Risk Assessment, the STAR program for area and minor sources will also take into consideration data drawn from the University of Louisville's monitoring program, which collected data from November 2001 to November 2005. This is a further risk assessment of the original data as well as a risk analysis of new monitoring data.

Sources

As stated in the introduction, Regulation 5.30 was adopted to address the risk posed by non-major point sources, such as:

- Mobile sources: a motorized vehicle that is registered for use on the public roads and highways. (For example: cars, trucks, buses; commercial vehicles; school buses; city fleet and TARC buses; private corporate fleets)
- Non-road mobile sources: a motorized vehicle that is not registered for use on the public roads and highways or any other equipment with a fossil fuel-fired engine that is not included as a point source. (For example: construction equipment; planes and associated aviation equipment; boats/barges; trains, locomotives and associated rail equipment; agricultural equipment; lawn and garden equipment)
- Area sources: a non-permitted commercial stationary source or other anthropogenic source of emissions that is not included in section 1.1.1, 1.1.3, or 1.1.4. (For example: gas stations; dry cleaners; auto body refinishers; lithographic print shops; electroplaters; small surface coaters)

While this is not an exhaustive list of sectors, it does provide some indication of the breadth of sectors included under Regulation 5.30. According to the EPA¹, the area sources listed below (and the subcategories within each) account for 90% of the VOCs that area sources [in general] emit and are of particular interest:

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|-------------------------------------|------------------------------|
| • Architectural surface coating | • Industrial surface coating |
| • Gasoline service stations | • Graphic arts |
| • Consumer solvents | • Dry cleaning |
| • Degreasing | • Traffic marking |
| • Auto refinishing | • Residential fuel use |
| • Commercial pesticide application | • Open burning |
| • Managed burning/ forest wildfires | |

Chemicals of Concern

The chemicals of concern with regard to Regulation 5.30 are listed in Regulation 5.23 (Sections 1.2; 2.2; 3.2; 4.2). Of specific concern will be any chemical found above target levels in “hotspot” areas (i.e. areas in which the exposure of particularly sensitive, “at risk” population groups, such as children, the elderly and those with pre-existing illnesses, is probable).

Risk

The risks associated with exposure to toxic air emissions will be prioritized as follows:

- If an air toxic is above target risk levels (to be established after emissions inventory research is complete), it will be prioritized by considering such factors as the magnitude of the risk and the number of people potentially at risk, as determined by demographic assessments.
- If a risk management solution will reduce several air toxics simultaneously, that solution may be prioritized over solutions addressing single air toxics.

Current External Programs and Regulations

The Plan of Action for Regulation 5.30 will by necessity take into consideration existing programs at the local, state and national level, and will draw upon the experiences of other cities and states as instructional resources. Some examples of external programs that may be of interest with regard to Regulation 5.30 are:

- Washington State’s “Enviro Stars” green business certification program for dry cleaners and auto body refinishers
- EPA’s Design for the Environment on-site assessments for auto body finishers
- Seattle’s Climate Action Plan and Green Ribbon Commission
- EPA’s SmartWay shipping program
- APCD’s Focus 2003 voluntary emissions reductions strategies
- Proposed and promulgated EPA regulations concerning PM_{2.5}, benzene, dry cleaning facilities, auto body refinishers, aviation standards, mobile and non-road source standards, et al.

Stakeholder Process

A group of approximately 20 community leaders representing various related stakeholder groups will be invited to help structure the strategies the city will implement to meet the goals of regulation 5.30. From the regulated community, for example, Louisville has 3 commercial dry cleaning chains currently engaged in environmentally responsible alternative cleaning processes, and these owner/operators represent potential stakeholder group participants and sector leaders.

Strategies

The ideal plan of action includes a mix of voluntary and regulatory measures, taking into consideration cutting-edge technological advances and modern approaches to resource use. New programs and emerging technologies will be actively researched and reviewed. Below is a list of potential strategy options, and although this list is by no means exhaustive, it does provide an idea of the range of strategies that will be considered.

- Incentivized voluntary programs:
 - Green Bus programs for schools in the area;
 - Continued greening of the city’s fleet (including hybrid and alternative fuel-based technology, city fleet emissions testing, diesel retrofitting);
 - Rebate-style programs (for corporate fleet retrofits, for voluntary public vehicle emissions testing);
 - Clean Engine Programs for various machinery;
 - Emphasized energy efficiency;
 - Improved synchronization of traffic;
 - Increased accessibility to alternative fuels;
 - Continued and increased public awareness and education.

- Regulatory measures: In light of newly proposed and promulgated EPA regulations, regulatory adjustments concerning dry cleaning facilities, auto body refinishers, lithographic printers, and other additional minor sources may be examined. Also of interest may be measures that prevent excess idling or that increase the value of downtown parking.

- In lieu of regulatory measures, Metro Government and the business community should look to create beneficial relationships, in the spirit of Louisville’s Partnership for a Green Community and the Metro Green Team, which would aid businesses in “greening” their procedures. The District could help identify willing groups and areas in which there is room for improvement, as well as helping to identify new and relevant technologies, and providing general encouragement and support.

- Potential solutions also exist in the form of expanded land use/energy/sustainable development programs—planting trees, supporting biker education/bike trail development, consumer education, proper car maintenance education, Lawn Care programs, etc

- The strategies implemented under Regulation 5.30 will take into consideration the best and most effective technologies currently available, with the goal of making Louisville a competitive and cutting edge “green city.”

Revised Timeline (Proposed)

- May 2006, hire remaining primary staff, create stakeholder group and propose meeting schedule
- July 2006, identify/categorize appropriate sources: minor, area, mobile, non-road. Section 2.2.1
- September-October 2006, develop emission inventories. Section 2.2.1; 2.2.2
- November 2006-January 2007, identify and evaluate existing and likely TAC emission reduction programs at federal level and other jurisdictions including Kentucky. Section 2.2.3, 2.2.4
- February-April 2007, identify appropriate risk goals, assess monitoring needs, identify resources to implement Plan of Action
- June 2007, present to the Board

- July-September 2007, public comment period
- January 2008, implementation

¹ “Introduction to Area Source Emission Inventory Development.” Volume III, Chapter 1, Pg. 1.2-8. Prepared for EPA and STAPPA/ALAPCO by Eastern Research Group, Inc.
http://www.epa.gov/ttn/chief/eiip/techreport/volume03/iii01_apr2001.pdf