

## Knox County Air Pollution Control Board

### Proposed Regulatory Revisions January 17, 2018

#### 1. Revise the following existing definitions in Section 13.1 so that they read as follows:

**"Air Contaminant Source"** shall mean any and all sources of emission of air contaminants, whether privately or publicly owned or operated. Without limiting the generality of the foregoing, this term includes all types of business, commercial and industrial plants, works, shops, and stores, and heating and power plants and stations, building and other structures of all types, including multiple family residences, apartment houses, office buildings, hotels, restaurants, schools, hospitals, churches, and other institutional buildings, automobiles, trucks, tractors, buses and other motor vehicles, garages and vending and service locations and stations, railroad locomotives, ships, boats, and other waterborne craft, portable fuel-burning equipment, incinerators of all types, indoor and outdoor, refuse dumps and piles, and all stack and other chimney outlets from any of the foregoing; provided, however, that neither automobiles, trucks, tractors, buses, or other motor vehicles powered by any fuel other than diesel oil and which were manufactured prior to September 1, 1967, automobiles, trucks, tractors, buses or other motor vehicles powered by diesel oil and manufactured prior to January 1, 1970, nor automobiles, trucks, tractors, buses, or other motor vehicles which are equipped to comply and do comply with the Federal "Motor Vehicle Air Pollution Control Act" shall be considered or determined to be an "air contaminant source.".

**"Air Curtain Destructor or Air Curtain Incinerator"** shall mean a portable or stationary combustion device that directs a plane of high velocity forced draft air through a manifold head into a burn chamber with vertical walls in such a manner as to maintain a curtain of air over the surface of the burn chamber and a recirculating motion of air under the curtain.

**"Continuous Monitoring"** shall mean the sampling and analysis of air contaminants in a continuous or timed sequence, using techniques which will adequately reflect actual emission levels or ambient concentrations on a continuous basis.

**"Emission"** shall mean the release of material to the ambient air.

**"Equivalent Method"** shall mean any method of monitoring, sampling, and analyzing for an air contaminant which can be demonstrated to the Director's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specific conditions, or any method so designated by these regulations. VOC emission limits equivalency calculations will be performed on a solids applied basis.

**"Hazardous Air Contaminant"** shall mean any air contaminant which may cause or contribute to an increase in mortality or an increase in serious irreversible, or incapacitating, reversible illness and has been so designated by the Director.

## Knox County Air Pollution Control Board

### Proposed Regulatory Revisions January 17, 2018

**"Incinerator"** shall mean any equipment, device, or contrivance used for disposal of waste or refuse by burning, including air curtain destructors and air curtain incinerators.

**"Malfunction"** shall mean any sudden and unavoidable failure of air pollution control equipment or process equipment, or for a process to operate in an abnormal and unusual manner. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

**"Modification"** shall mean any physical change in, or change in the method of operation of an air contaminant source, which increases the amount of any air contaminant (to which an emission standard applies) emitted by such source or which results in the emission of any air contaminant (to which an emission standard applies) not previously emitted except that:

- A. Routine maintenance, repair, and replacement shall not be considered physical changes, and
- B. The following shall not be considered a change in the method of operation:
  - 1. An increase in the production rate, if such increase does not exceed the operating design capacity nor the stated production rate on the permit of the affected source;
  - 2. An increase in hours of operation if such increase does not exceed the operating hours stipulated as a permit condition of the source;
  - 3. The use of an alternative fuel if the source is designed to accommodate such alternative fuel;
  - 4. Required alterations to equipment for the use of an alternative fuel or raw material by reason of an order under Section 2(a) and (b) of the energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan in effect pursuant to the Federal Power Act.
- C. The burden of proof establishing that a change is excepted under paragrpahs A, B, E, and F is on the owner or operator. The Director shall rule on whether or not a reported change is excepted in timely fashion. Further expansions or restrictions of the definition may be listed in specific chapters or rules.
- D. "Major Modification" is defined in Section 45.0 and shall be overriding for the purposes of that section.

## Knox County Air Pollution Control Board

### Proposed Regulatory Revisions January 17, 2018

- E. Any physical change in an air contaminant source (or change in the method of operation of an air contaminant source) subject to a major source operating permit, which does not meet the definition of "Title I Modification" but which qualifies as an operational flexibility change, as a minor permit modification, or for group processing of minor permit modifications, shall not require a construction permit. The terms used herein are identified in detail in Section 25.70.
- F. 1. With the Director's approval, any physical change in an air contaminant source (or change in the method of operation of an air contaminant source) meeting all of the following 3 provisions shall not require a construction permit:
  - The change is not subject to requirements of Section 25.70, Section 41.0, or Section 45.0;
  - The change does not result in emissions exceeding the emissions allowable under the existing operating permit;
  - The change does not result in the emission of any air contaminant (to which an emission standard applies) not previously emitted.
- 2. The air contaminant source, to make changes pursuant to this part, shall provide the Director with written notification of at least 7 days in advance of the proposed change. The written notification shall contain a brief description of the change, the date on which the change will occur, pollutants emitted, declaration of any change in emissions, and any applicable requirements that would apply as a result of the change. The written notice shall also contain a statement that the change does not result in emissions exceeding the emissions allowable under the existing operating permit. The Director and the air contaminant source shall keep each such notice on file with a copy of the relevant permit.

**"Opacity"** shall mean the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

**"Open Burning"** shall mean the burning of any matter under such conditions that products of combustion are emitted directly into the open atmosphere without passing directly through a stack.

**"Particulate Matter"** shall mean any material except uncombined water that exists in a finely divided form as a liquid or a solid.

**"PM<sub>10</sub> Emissions"** shall mean finely divided solid or liquid material (excluding uncombined water), with an aerodynamic diameter less than or equal to a nominal 10 micrometers emitted to the ambient air as measured by an applicable reference methods, or

## Knox County Air Pollution Control Board

### Proposed Regulatory Revisions January 17, 2018

an equivalent or alternative method, specified in the regulations, or by a test method specified in these regulations.

**"Process Emissions"** shall mean any emission of an air contaminant to the ambient air other than that from fuel burning equipment, incinerator, wigwam burners, or open burning.

**"Process Weight"** shall mean the total weight of all materials introduced into any specific process that may cause any emission of particulate matter. Solid fuels charged are considered as part of the process weight, but liquid and gaseous fuels and combustion-air are not.

**"Suspended Particulates"** shall mean particulate matter which will remain suspended in air for an appreciable period of time.

#### 2. Add the following new definitions to Section 13.1 so that they read as follows:

**"Alternative Method"** shall mean any method of sampling and analyzing for an air pollutant which is not a reference method or an equivalent method, but which has been demonstrated to the Director's satisfaction to produce, in specific cases, results adequate for its determination of compliance, or any method so designated by these regulations.

**"Continuous Emission Monitor"** shall mean an instrument capable of measuring and recording emissions of various pollutants and meeting the performance specifications stated by Section 26.5-A.

**"Isokinetic Sampling"** shall mean sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sampling point.

**"Nonattainment Area"** shall mean either as follows:

- A. A geographical area designated by the US Environmental Protection Agency or the Board as nonattainment for an air contaminant (pollutant) for which there is a national ambient air quality standard; or
- B. For any other air contaminant for which there is an ambient air quality standard in Section 14.0, a geographical area designated by the Board as not attaining that standard.

## **Knox County Air Pollution Control Board**

### **Proposed Regulatory Revisions January 17, 2018**

**“Particulate Matter Emissions”** shall mean all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by applicable reference methods, or an equivalent or alternative method specified in the regulations, or by a test method specified in these regulations.

**“Part Per Billion (ppb)”** shall mean a term describing parts of an air contaminant per billion parts of gas by volume (1 ppb equals 0.0000001 percent by volume).

**“Parts Per Million (ppm)”** shall mean a term describing parts of an air contaminant per million parts of gas by volume (1 ppm equals 0.0001 percent by volume).

**“Political Subdivision”** shall mean any municipality, city, incorporated town, county, district or authority, or any portion or combination of two or more thereof.

**“Portland Cement Plant”** shall mean any air contaminant source manufacturing portland cement by either the wet or dry process.

**“Proportional Sampling”** shall mean sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

**“Standard”** shall mean a standard of performance promulgated under these regulations.

**“Volatile Organic Compounds (VOC)”** shall mean any compound as defined by 40 CFR Part 51, Subpart F.

**“Wigwam Burner”** shall mean a type of burner commonly known as tepee, truncated cone, conical burner, or silo burner.

## **Knox County Air Pollution Control Board**

### **Proposed Regulatory Revisions January 17, 2018**

#### **3. Revise the following existing definitions in Section 16.2 so that they read as follows:**

**“Air Curtain Destructor or Air Curtain Incinerator”** is a portable or stationary combustion device that directs a plane of high velocity forced draft air through a manifold head into a burn chamber with vertical walls in such a manner as to maintain a curtain of air over the surface of the burn chamber and a recirculating motion of air under the curtain. The use of an air curtain destructor or air curtain incinerator is considered controlled open burning subject to the opacity requirements of Section 17.0 (Regulation of Visible Emissions) of these Regulations.

**“Open Burning”** is the burning of any matter under such conditions that products of combustion are emitted directly into the open atmosphere without passing directly through a stack.

#### **4. Revise Section 21.2 so that it reads as follows:**

##### **21.2 Determination of Objectionable Odors**

An odor shall be deemed "objectionable" when documented investigation by the Department includes, as a minimum: observations on the odor's nature, intensity, duration, and location, and evidence that the odor causes injury, detriment, nuisance, or annoyance to persons or to the public. An instrument, device, or technique may be used by the Department in the determination of the intensity of an odor and may be used in the enforcement of this regulation.