STATEMENT OF BASIS

Solid Waste Disposal Authority of the City of Huntsville
Huntsville Solid Waste to Energy Facility
Madison County
709-I104

The Solid Waste Disposal Authority of the City of Huntsville (SWDA) has applied for renewal of Major Source Operating Permit (MSOP) No. 709-I104 for the Huntsville Solid Waste to Energy Facility (HSWEF). This proposed Title V MSOP renewal has been developed in accordance with the provisions of ADEM Admin. Code r. 335-3-16. The above-named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans, and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of the permit.

The facility began operations in 1990. The initial Title V MSOP was issued on October 10, 2003. This is the second renewal. The current MSOP was issued on December 23, 2008 and expired on October 9, 2020. The renewal application was received on March 27, 2020. ADEM Admin. Code r. 335-3-16-12(c) states, "If a timely and complete application for a permit renewal is submitted, but the Department fails to take final action to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied and any permit shield granted for the permit shall continue in effect during that time;" therefore, the current MSOP was administratively continued.

The facility is located in Madison County, which is currently in compliance with the National Ambient Air Quality Standards (NAAQS) for all pollutants.

There are no current or ongoing enforcement actions against HSWEF necessitating additional requirements to achieve compliance with the proposed permit conditions. The enforcement and compliance history for the facility can be found at https://echo.epa.gov/ (Search using Facility ID AL0000000108900104).

Background

The facility is a municipal waste combustor. The facility is allowed to operate 8,760 hours per year unless otherwise specified. Based on the Title V permit application, this facility is a major source for particulate matter (PM), sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen oxides (NO_X), volatile organic compounds (VOCs), and hazardous air pollutants (HAPs).

Changes from the existing permit:

1. Incorporated the following air permits, in association with the addition of a liquid direct injection (LDI) system:

Permit Number	Permit Description	Issued
X001	129.4 MMBTU/hr Refuse Fired Boiler #1 with Spray Dryer Scrubber and Baghouse System in Series, SNCR, and Carbon Injection for Control	February13, 2019
X002	129.4 MMBTU/hr Refuse Fired Boiler #2 with Spray Dryer and Baghouse System in Series, SNCR, and Carbon Injection for Control	February 13, 2019

2. Removed the obsolete requirements associated with 40 CFR Part 60, Subpart Cb, which are denoted by the phrase "before April 28, 2009." Removed the phrase "on and after April 28, 2009," which denotes the revised emission limits.

3. Incorporated requirements for an emergency generator (Emission Unit No. 008).

4. Added a proviso to each unit's *Applicability* section concerning ADEM Admin. Code R. 335-3-16, "Major Source Operating Permits."

5. Identified the specific pollutants to which Prevention of Significant Deterioration (PSD) limits apply in the *Applicability* section for all emission units.

6. Relocated the testing methods from the *Emission Standards* section to the *Compliance and Performance Test Methods and Procedures* section for all emission units.

7. Removed the statements concerning alternative testing methods for all emission units.

8. Removed source-specific requirements for fuel oil. The package boilers (Emission Unit Nos. 003, 004, 005, and 006) are classified as gas 1 boilers under 40 CFR Part 63, Subpart DDDDD and cannot burn fuel oil unless curtailed from using natural gas.

9. Incorporated the applicable requirements of 40 CFR Part 63, Subpart DDDDD for the package boilers (Emission Unit Nos. 003, 004, 005, and 006).

Emission Units 001 and 002: 129.4 MMBtu/hr Refuse Fired Boilers #1 and #2

Overview

The two 129.4 MMBtu/hr municipal solid waste combustion (MWC) units (Refuse Fired Boilers #1 and #2) are each capable of combusting 345 tons of waste per day. The waste includes non-hazardous solids and liquids, tires, wastewater treatment plant sludge, medical waste, and landfill gas. The boilers are also capable of firing natural gas, No. 2 fuel oil, and landfill gas as auxiliary fuels. The boilers have a steam generation capacity of 89,310 pounds per hour, each, which is supplied to Redstone Arsenal. The emission control systems for the units include the following: semi-dry flue gas scrubbers injecting lime; fabric filter baghouses; selective non-catalytic reduction (SNCR) control systems for nitrogen oxides; and carbon injection control systems for

mercury and dioxins/furans (PCDDs/PCDFs). The units are subject to 40 CFR Part 60, Subpart Cb – Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994.

The facility began construction of Refuse Fired Boilers #1 and #2 in 1987. The MWC units were required to undergo a prevention of significant deterioration (PSD) review for particulate matter (PM), sulfur dioxides (SO_2), nitrogen oxides (NO_X), carbon monoxide (CO), mercury, and beryllium. The resulting best available control technology (BACT) limits equal or exceed the emission guidelines of Subpart Cb. The facility shall comply with the guidelines of Subpart Cb by complying with the BACT limits.

Emission Standards

The proposed limits for Refuse Fired Boilers #1 and #2 are listed in the table below, along with the basis of the limits.

Pollutant	**Emission Limit**	**Source of Limit**
PM	25 mg/dscm, not to exceed 4.5 lb/hr	40 CFR Part 60, Subpart Cb
		BACT
SO_2	29 ppmdv or 75% DRE, not to exceed 16.65 lb/hr	40 CFR Part 60, Subpart Cb
		BACT
NO_X	205 ppmdv, not to exceed 59.2 lb/hr	40 CFR Part 60, Subpart Cb
		BACT
CO	50 ppmdv, not to exceed 7.6 lb/hr	40 CFR Part 60, Subpart Cb
		BACT
Mercury	50 µg/dscm or 85% DRE	40 CFR Part 60, Subpart Cb
		BACT
Beryllium	7.53×10^{-4} lb/hr	BACT
HCl	29 ppmdv or 95% DRE	40 CFR Part 60, Subpart Cb
		Rule 335-3-14-.04
Opacity	< 5% when medical waste is charged to the unit (includes the 1-hour period after discontinuing charging of medical waste), and ≤ 10% when medical waste is not charged to the unit	40 CFR Part 60, Subpart Cb
		Rule 335-3-14-.04
Cadmium	35 µg/dscm	40 CFR Part 60, Subpart Cb
		Rule 335-3-14-.04
Lead	400 µg/dscm	40 CFR Part 60, Subpart Cb
		Rule 335-3-14-.04
Dioxins/Furans	30 ng/dscm	40 CFR Part 60, Subpart Cb
		Rule 335-3-14-.04
Fugitive Ash	VEs of combustion ash shall not exceed	40 CFR Part 60, Subpart Cb

	5% of observation time (9 minutes per 3 hours)	Rule 335-3-14-.04

Particulate Matter

Refuse Fired Boilers #1 and #2 are subject to BACT limits for particulate matter (PM), which are equivalent to the emission guidelines of 40 CFR Part 60, Subpart Cb. Pursuant to §60.33b(a)(1)(i), the permitted emission rate for each unit is 25 milligrams per dry standard cubic meter, corrected to 7% oxygen (O_2). The permitted emission rate for each unit shall not exceed 4.5 lb/hr. These BACT limits were established in Air Permit Nos. 709-I104-X001 and X002, which were issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Sulfur Dioxide

Refuse Fired Boilers #1 and #2 are subject to BACT limits for sulfur dioxide (SO_2), which are equivalent to the emission guidelines of 40 CFR Part 60, Subpart Cb. Pursuant to §60.33b(b)(3)(i), the permitted emission rate for each unit is 29 ppmdv or 75% reduction by weight or volume, corrected to 7% O_2, whichever is less stringent, as determined by a 24-hour daily geometric average. The permitted emission rate for each unit shall not exceed 16.65 lb/hr, as determined by a 24-hour rolling average. These BACT limits were established in Air Permit Nos. 709-I104-X001 and X002, which were issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Nitrogen Oxides

Refuse Fired Boilers #1 and #2 are subject to BACT limits for nitrogen oxides (NO_X), which are equivalent to the emission guidelines of 40 CFR Part 60, Subpart Cb. Pursuant to §60.33b(d), the permitted emission rate for each unit is 205 ppmdv, corrected to 7% O_2, as determined by a 24-hour daily arithmetic average. The permitted emission rate for each unit shall not exceed 59.2 lb/hr, as determined by a 30-day rolling average generated by a continuous emission monitoring system (CEMS). These BACT limits were established in Air Permit Nos. 709-I104-X001 and X002, which were issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Carbon Monoxide

Refuse Fired Boilers #1 and #2 are subject to BACT limits for carbon monoxide (CO), which exceed the emission guidelines of 40 CFR Part 60, Subpart Cb. The permitted emission rate for each unit is 50 ppmdv, corrected to 7% O_2, as determined by a 4-hour rolling average. The permitted emission rate for each unit shall not exceed 7.6 lb/hr, except for periods of startup and shutdown. Pursuant to §60.34b(a), the emission limits are as least as protective as the guidelines in Table 3 of Subpart Cb. These BACT limits were established in Air Permit Nos. 709-I104-X001 and X002, which were issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Mercury

Refuse Fired Boilers #1 and #2 are subject to BACT limits for mercury, which are equivalent to the emission guidelines of 40 CFR Part 60, Subpart Cb. Pursuant to §60.33b(a)(3), the permitted emission rate for each unit is 50 micrograms per dry standard cubic meter or 85% reduction by weight, corrected to 7% O_2, whichever is less stringent. These BACT limits were established in Air Permit Nos. 709-I104-X001 and X002, which were issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Beryllium

Refuse Fired Boilers #1 and #2 are subject to BACT limits for beryllium. The permitted emission rate for each unit is 7.53×10^{-4} lb/hr. These BACT limits were established in Air Permit Nos. 709-I104-X001 and X002, which were issued July 13, 1988, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Hydrogen Chloride

Refuse Fired Boilers #1 and #2 are subject to the emission guidelines of 40 CFR Part 60, Subpart Cb for hydrogen chloride (HCl). Pursuant to §60.33b(b)(3)(ii), the permitted emission rate for each unit is 29 ppmdv or 95% reduction by weight or volume, corrected to 7% O_2, whichever is less stringent. These limits were established in Air Permit Nos. 709-I104-X001 and X002, which were issued September 3, 1998, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Opacity

Refuse Fired Boilers #1 and #2 are subject to the emission guidelines of 40 CFR Part 60, Subpart Cb for opacity. Pursuant to §60.33b(a)(1)(iii), the opacity limit for each unit is 10%, as determined by a 6-minute average. This limit applies when medical waste is not being charged to the unit(s). When medical waste is being charged to the unit(s), the opacity limit is 5%, which includes the 1-hour period after charging of medical waste has ceased. These limits were established in Air Permit Nos. 709-I104-X001 and X002, which were issued September 3, 1998, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Cadmium

Refuse Fired Boilers #1 and #2 are subject to the emission guidelines of 40 CFR Part 60, Subpart Cb for cadmium. Pursuant to §60.33b(a)(2)(i), the permitted emission rate for each unit is 35 micrograms per dry standard cubic meter, corrected to 7% O_2. These limits were established in the Title V MSOP that was issued on December 23, 2008.

Lead

Refuse Fired Boilers #1 and #2 are subject to the emission guidelines of 40 CFR Part 60, Subpart Cb for lead. Pursuant to §60.33b(a)(4), the permitted emission rate for each unit is 400 micrograms per dry standard cubic meter, corrected to 7% O_2. These limits were established in the Title V MSOP that was issued on December 23, 2008.

Dioxins/Furans

Refuse Fired Boilers #1 and #2 are subject to the emission guidelines of 40 CFR Part 60, Subpart Cb for dioxins/furans (PCDDs/PCDFs). Pursuant to §60.33b(c)(1)(iii), the permitted emission rate for each unit is 30 nanograms per dry standard cubic meter (total mass), corrected to 7% O_2. These limits were established in Air Permit Nos. 709-I104-X001 and X002, which were issued September 3, 1998, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Fugitive Ash

Refuse Fired Boilers #1 and #2 are subject to the emission guidelines of 40 CFR Part 60, Subpart Cb for fugitive ash emissions. Pursuant to §60.36b and §60.55b, visible emissions of combustion ash shall not exceed 5% of the observation period (i.e., 9 minutes per 3-hour period). This emission limit does not apply to visible emissions (VEs) discharged inside buildings or enclosures of ash handling systems, in addition to VEs during maintenance and repair. However, this emission limit does apply to VEs discharged to the atmosphere from buildings or enclosures of ash handling systems. These limits were established in Air Permit Nos. 709-I104-X001 and X002, which were issued September 3, 1998, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Periodic Monitoring

Refuse Fired Boilers #1 and #2 utilize continuous monitors to measure the following emissions or parameters: SO_2, NO_X, O_2, CO, opacity, steam load, baghouse inlet temperature, and carbon feed rate. The continuous emission monitoring systems (CEMS) are subject to Appendix B and Appendix F of 40 CFR Part 60. The facility also monitors lime and ammonia flow rates, as these parameters indicate compliance with mercury and NO_X emissions. No periodic monitoring is required for heavy metals since compliance is determined by testing, as required by 40 CFR Part 60, Subpart Cb. No periodic monitoring is required for beryllium, as compliance with emissions limits was determined in the initial performance testing and no changes have been made to the process that would affect the compliance status of beryllium emissions. All monitoring shall be conducted as specified in Subpart Cb. The results of annual stack testing shall be submitted to the Department, as well as semiannual reports indicating any exceedances of the permitted emission limits. The facility shall maintain records to show compliance with the permitted emission limits, and these records shall be submitted semiannually.

Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring (CAM) applies to pollutant-specific emission units that are subject to an emission limitation or standard where a control device is used to achieve compliance with an applicable emission limitation. CAM requires facilities to monitor compliance indicators for emission units to provide reasonable assurance for compliance with regulatory emission limitations. As referenced in §64.2(b)(1)(i), CAM exempts emission standards that were proposed by EPA after November 15, 1990 pursuant to Section 111 (NSPS) or Section 112 (NESHAPS). Therefore, the following pollutants would be exempt from CAM since 40 CFR Part 60, Subpart Cb was promulgated after November 15, 1990: NO_X, SO_2, CO, PM, mercury, lead, cadmium, hydrogen chloride, and dioxins/furans. Beryllium would be exempt from CAM since the potential pre-control device emissions are less than the major source applicability threshold, pursuant to §64.2(a)(3).

It is noted that CO is monitored by a continuous emissions monitoring system (CEMS), and the MWC units employ good combustion techniques (i.e., auxiliary burners) to control CO emissions. Therefore, the MWC units do not utilize a control device for CO emissions. Additionally, the BACT limit for CO is lower than the limit (50 ppmdv) required by Subpart Cb.

Emission Units 003 - 006: 116.3 MMBtu/hr Package Boilers #1 - #4

Overview

The four 116.3 MMBtu/hr package boilers (Package Boilers #1, #2, #3, and #4) serve as back-ups to Refuse Fired Boilers #1 and #2. The package boilers are capable of firing natural gas, landfill gas, and No. 2 fuel oil as auxiliary fuels. The package boilers generally operate during the winter months, starting in October. The package boilers have a steam generation capacity of 100,000 pounds per hour, each, which is supplied to Redstone Arsenal. The units are subject to 40 CFR Part 60, Subpart Db and 40 CFR Part 63, Subpart DDDDD, the latter of which was finalized on March 21, 2011.

The facility began construction of Package Boilers #1, #2, #3, and #4 in 1987. The package boilers were required to undergo a prevention of significant deterioration (PSD) review for particulate matter (PM), sulfur dioxides (SO_2), nitrogen oxides (NO_X), carbon monoxide (CO), mercury, sulfuric acid mist, and beryllium. The resulting best available control technology (BACT) limits equal or exceed the emission standards of Subpart Db. The facility shall comply with the standards of Subpart Db by complying with the BACT limits.

Emission Standards

The proposed limits for the package boilers are listed in the table below, along with the basis of the limits.

Pollutant	Emission Limit	Source of Limit
PM	0.05 lb/MMBtu, not to exceed 5.82 lb/hr	BACT
SO_2	0.2 lb/MMBtu, not to exceed 23.26 lb/hr	BACT
NO_X	0.1 lb/MMBtu, not to exceed 11.63 lb/hr	40 CFR Part 60, Subpart Db
		BACT
CO	0.036 lb/MMBtu, not to exceed 4.21 lb/hr	BACT
Mercury	0.001 lb/hr	BACT
Beryllium	2.9×10^{-4} lb/hr	BACT
Sulfuric Acid Mist	0.91 lb/hr	BACT
Opacity	≤ 20%, except one 6-minute period every 60 minutes not to exceed 27%	40 CFR Part 60, Subpart Db

Particulate Matter

Package Boilers #1, #2, #3, and #4 are subject to BACT limits for particulate matter (PM). The permitted emission rate for each package boiler is 0.05 lb/MMBtu, not to exceed 5.82 lb/hr. These limits were established in Air Permit Nos. 709-I104-X003, X004, X005, and X006, which were issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Sulfur Dioxide

Package Boilers #1, #2, #3, and #4 are subject to BACT limits for sulfur dioxide (SO_2). The permitted emission rate for each package boiler is 0.2 lb/MMBtu, not to exceed 23.26 lb/hr. These limits were established in Air Permit Nos. 709-I104-X003, X004, X005, and X006, which were issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Nitrogen Oxides

Package Boilers #1, #2, #3, and #4 are subject to BACT limits for nitrogen oxides (NO_X), which are equivalent to the requirements of 40 CFR Part 60, Subpart Db. Pursuant to §60.44b, the permitted emission rate for each package boiler is 0.1 lb/MMBtu, as determined by a 30-day rolling average. The permitted emission rate for each package boiler shall not exceed 11.63 lb/hr. These BACT limits were established in Air Permit Nos. 709-I104-X003, X004, X005, and X006, which were issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Carbon Monoxide

Package Boilers #1, #2, #3, and #4 are subject to BACT limits for carbon monoxide (CO). The permitted emission rate for each package boiler is 0.036 lb/MMBtu, not to exceed 4.21 lb/hr. These limits were established in Air Permit Nos. 709-I104-X003, X004, X005, and X006, which were issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Mercury

Package Boilers #1, #2, #3, and #4 are subject to BACT limits for mercury. The permitted emission rate for each package boiler is 0.001 lb/hr. These limits were established in Air Permit Nos. 709-I104-X003, X004, X005, and X006, which were issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Beryllium

Package Boilers #1, #2, #3, and #4 are subject to BACT limits for beryllium. The permitted emission rate for each package boiler is 2.9×10^{-4} lb/hr. These limits were established in Air Permit Nos. 709-I104-X003, X004, X005, and X006, which were issued July 13, 1988, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Sulfuric Acid Mist

Package Boilers #1, #2, #3, and #4 are subject to BACT limits for sulfuric acid mist. The permitted emission rate for each package boiler is 0.91 lb/hr. These limits were established in Air Permit Nos. 709-I104-X003, X004, X005, and X006, which were issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Opacity

Package Boilers #1, #2, #3, and #4 are subject to the requirements of 40 CFR Part 60, Subpart Db for opacity. According to §60.43b(f), each package boiler shall not discharge particulate of an opacity greater than 20%, as determined by a 6-minute average, except one 6-minute period in any 60-minute period not to exceed 27%.

40 CFR Part 63, Subpart DDDDD

Package Boilers #1, #2, #3, and #4 are subject to the requirements of 40 CFR Part 63, Subpart DDDDD – Emission Standards for Hazardous Air Pollutants for Major Sources: Commercial, Industrial, and Institutional Boilers and Process Heaters. The package boilers have not burned No. 2 fuel oil since the compliance deadline of Subpart DDDDD, as specified in §63.7495(b). Therefore, the package boilers are categorized as "units designed to burn gas 1 fuels." As referenced in §63.7545(f), the package boilers are restricted to firing gas 1 fuels (i.e., natural gas and landfill gas), except during periods of gas curtailment. Therefore, the permitted standards associated with diesel fuel (No. 2 fuel oil) are obsolete and have been removed.

Periodic Monitoring

Package Boilers #1, #2, #3, and #4 utilize continuous monitors for oxygen (O_2), NO_X, and opacity. The continuous emission monitoring systems (CEMS) are subject to Appendix B and Appendix F of 40 CFR Part 60. No periodic monitoring is required for mercury and beryllium due to the inherently low amounts of metals in natural gas and landfill gas. The sulfur content of the fuels shall be monitored using vendor records, which would ensure compliance with the sulfuric acid mist and SO_2 limits.

40 CFR Part 63, Subpart DDDDD

As referenced in §63.7555(h), the facility shall maintain records of the total hours per year that alternative fuels (non-gas 1 fuels) are burned and the total hours per year that the package boilers operated during periods of gas curtailment. The facility shall conduct annual tune-ups of the package boilers, as specified in Table 3 of Subpart DDDDD. The facility is required to have a one-time energy assessment performed by a qualified energy assessor, as specified in Table 3 of Subpart DDDDD.

CAM

The package boilers would not be subject to CAM since the units do not utilize a control device.

Emission Unit 007: Lime Storage Silo #1

Overview

Lime Storage Silo #1 stores crushed limestone, which is utilized to control emissions from Refuse Fired Boilers #1 and #2.

Emission Standards

Opacity

Lime Storage Silo #1 is subject to the state opacity standard.

Particulate Matter

Lime Storage Silo #1 is subject to a BACT limit for particulate matter (PM). The PM limit for Lime Storage #1 is 0.2 lb/hr. This BACT limit was established in Air Permit No. 7-09-I104-X008, which was issued October 6, 1987, and subsequently incorporated into the Title V MSOP that was issued on October 10, 2003.

Periodic Monitoring

While Lime Storage Silo #1 is being filled, visible emissions must be monitored. If visible emissions are observed, corrective actions must be taken prior to the next filling of the silo. The facility is required to maintain records of monitoring and any corrective actions.

CAM

Lime Storage Silo #1 would not be subject to CAM since the potential pre-control device emissions are less than the major source applicability threshold (100 TPY) for PM, pursuant to §64.2(a)(3).

Emission Unit 008: Emergency Generator

Overview

The facility operates a 900 HP emergency diesel-fired reciprocating internal combustion engine (RICE). Per §63.6585, the engine is subject to 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. However, the engine does not have to meet the requirements of 40 CFR Part 63, Subpart A and Subpart ZZZZ, as stated in §63.6590(b)(3).

Emission Standards

Opacity

The emergency generator is subject to the state opacity standard.

40 CFR Part 63, Subpart ZZZZ

The emergency generator is subject to 40 CFR Part 63, Subpart ZZZZ. In order for the engine to remain classified as emergency, the engine must be operated according to the requirements of §63.6640(f)(1) through (3).

Periodic Monitoring

Since the engine is classified as emergency, no additional monitoring requirements for the opacity standard are required.

Environmental Justice

ADEM utilized the EJSCREEN screening tool to perform an analysis of the area (see Appendix A).

Recommendation

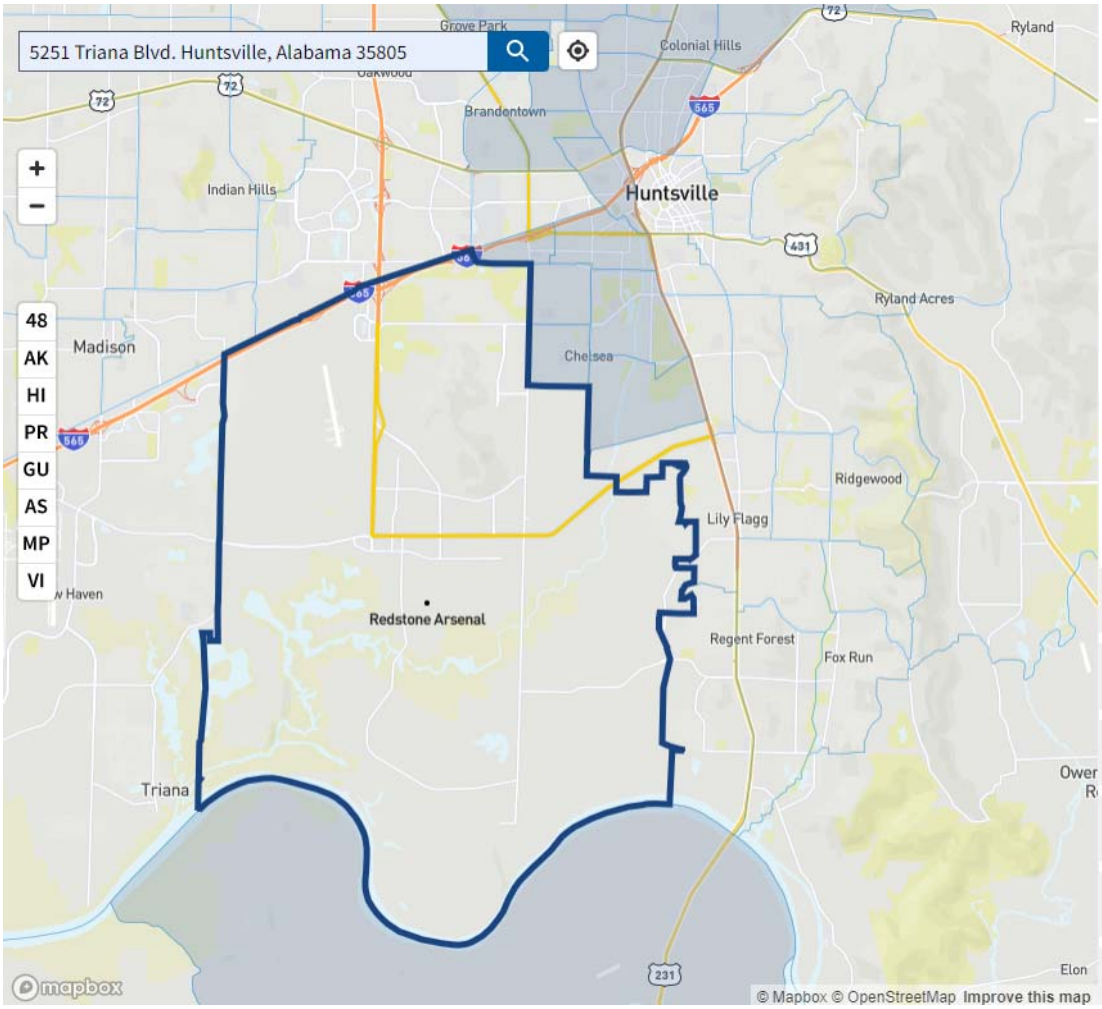
The proposed monitoring above would be sufficient to demonstrate compliance with all state and federal requirements. Therefore, I recommend that the Title V Major Source Operating Permit (503-8043) renewal be issued as proposed, pending resolution of any comments received during a 30-day public comment period and a 45-day EPA review. The expiration date for the proposed permit would be March XX, 2035 as allowed in ADEM Admin. Code 335-3-16-.05(b)(2). The permit will be reviewed every 5 years during this period beginning in February of 2028.

Will Bacon

Will Bacon
Chemical Branch
Air Division

February 24, 2023
Date

Appendix A



Tract information
Number: 01089011100
County: Madison County
State: Alabama
Population: 1,348

Tract demographics
Race / Ethnicity (show)
Age (show)

Identified as disadvantaged?

NO

This tract is not considered disadvantaged. It does not meet any burden thresholds **OR** at least one associated socioeconomic threshold.

Send feedback

Climate change +

Energy +

Health +

Housing +

Legacy pollution +

Transportation +

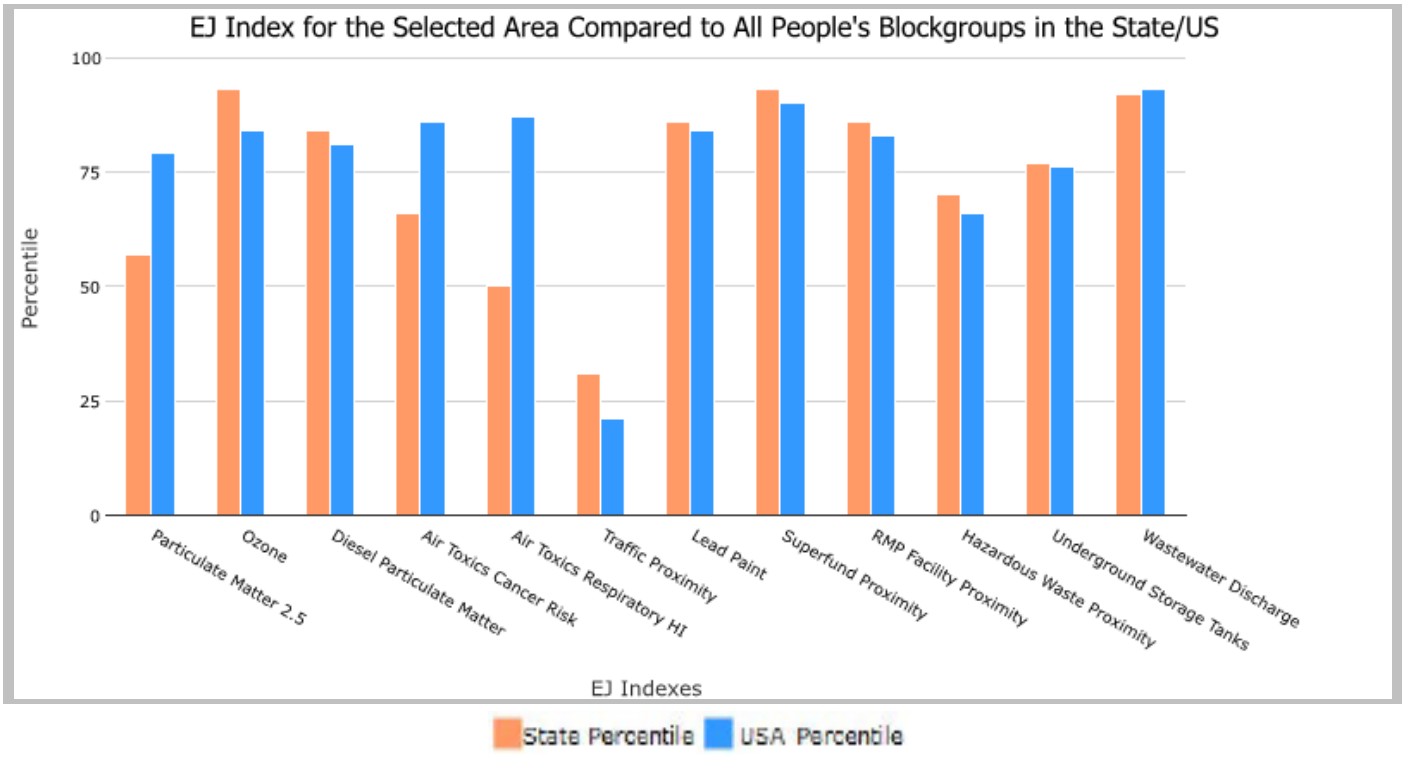
EJScreen Report (Version 2.1)

1 mile Ring Centered at 34.669641,-86.612263, ALABAMA, EPA Region 4

Approximate Population: 85

Input Area (sq. miles): 3.14

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	57	79
EJ Index for Ozone	93	84
EJ Index for Diesel Particulate Matter*	84	81
EJ Index for Air Toxics Cancer Risk*	66	86
EJ Index for Air Toxics Respiratory HI*	50	87
EJ Index for Traffic Proximity	31	21
EJ Index for Lead Paint	86	84
EJ Index for Superfund Proximity	93	90
EJ Index for RMP Facility Proximity	86	83
EJ Index for Hazardous Waste Proximity	70	66
EJ Index for Underground Storage Tanks	77	76
EJ Index for Wastewater Discharge	92	93



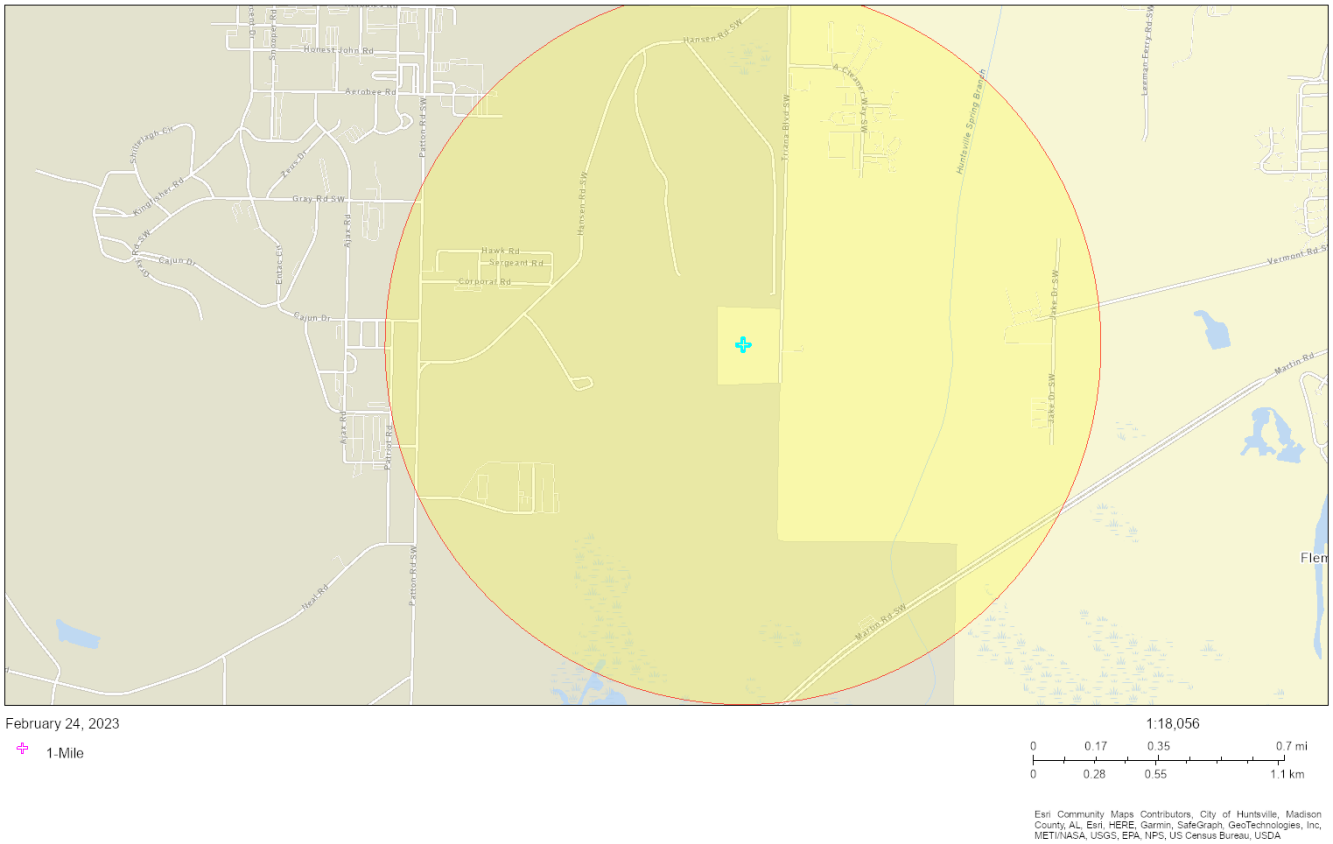
This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

EJScreen Report (Version 2.1)

1 mile Ring Centered at 34.669641,-86.612263, ALABAMA, EPA Region 4

Approximate Population: 85

Input Area (sq. miles): 3.14



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJScreen Report (Version 2.1)

1 mile Ring Centered at 34.669641,-86.612263, ALABAMA, EPA Region 4

Approximate Population: 85

Input Area (sq. miles): 3.14

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 (µg/m^3)	8.59	8.92	27	8.67	50
Ozone (ppb)	42.8	39	93	42.5	55
Diesel Particulate Matter* (µg/m^3)	0.276	0.223	71	0.294	50-60th
Air Toxics Cancer Risk* (lifetime risk per million)	30	35	53	28	80-90th
Air Toxics Respiratory HI*	0.4	0.47	35	0.36	80-90th
Traffic Proximity (daily traffic count/distance to road)	5	290	11	760	6
Lead Paint (% Pre-1960 Housing)	0.3	0.17	77	0.27	58
Superfund Proximity (site count/km distance)	0.14	0.051	94	0.13	76
RMP Facility Proximity (facility count/km distance)	0.6	0.46	77	0.77	63
Hazardous Waste Proximity (facility count/km distance)	0.22	0.9	41	2.2	34
Underground Storage Tanks (count/km^2)	0.99	1.9	57	3.9	47
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.058	0.36	87	12	81
Socioeconomic Indicators					
Demographic Index	62%	38%	81	35%	84
People of Color	59%	35%	74	40%	72
Low Income	66%	36%	87	30%	91
Unemployment Rate	13%	6%	85	5%	88
Limited English Speaking Households	3%	1%	86	5%	66
Less Than High School Education	26%	13%	86	12%	88
Under Age 5	12%	6%	89	6%	91
Over Age 64	7%	17%	10	16%	16

*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

For additional information, see: www.epa.gov/environmentaljustice

EJScreen Report (Version 2.1)

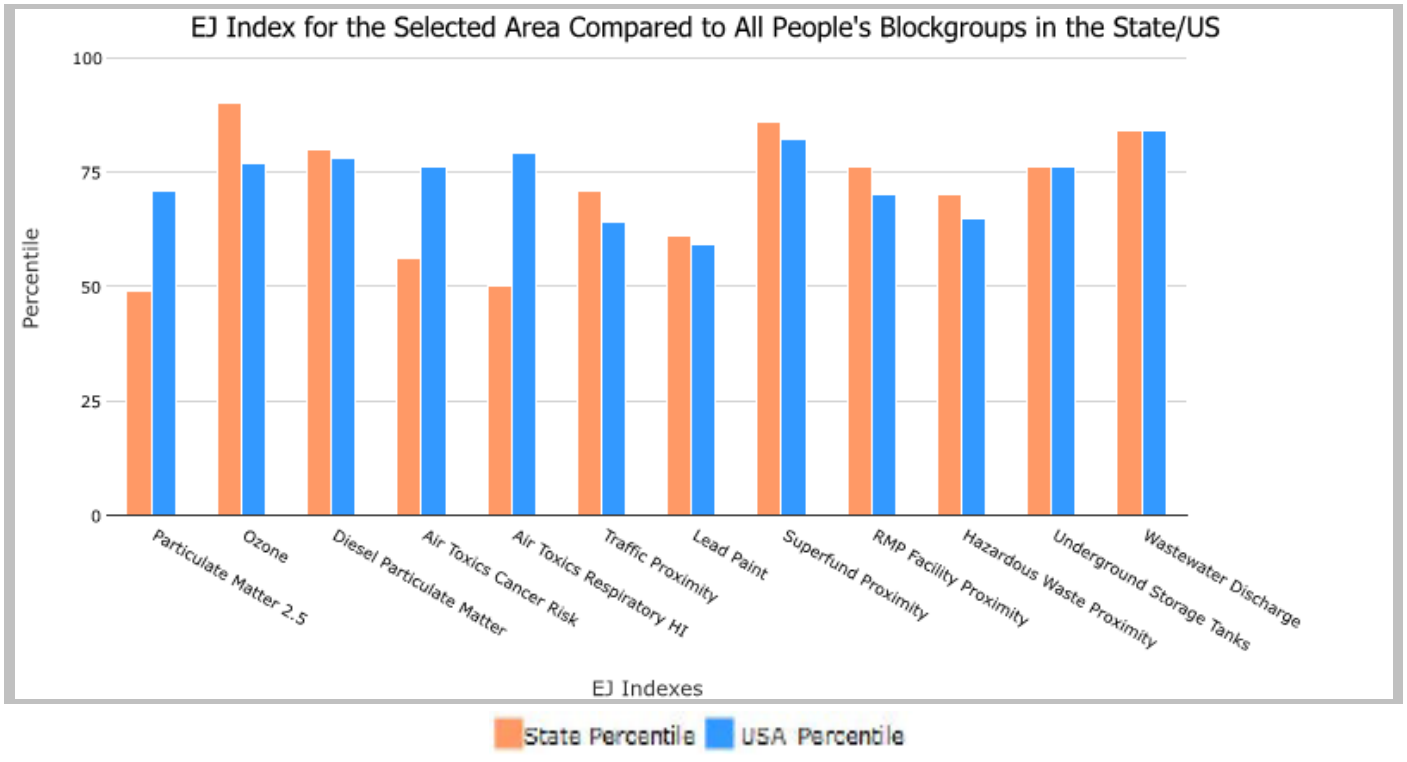
3 miles Ring Centered at 34.669641,-86.612263, ALABAMA, EPA Region 4

Approximate Population: 25,230

Input Area (sq. miles): 28.27

3-Mile

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	49	71
EJ Index for Ozone	90	77
EJ Index for Diesel Particulate Matter*	80	78
EJ Index for Air Toxics Cancer Risk*	56	76
EJ Index for Air Toxics Respiratory HI*	50	79
EJ Index for Traffic Proximity	71	64
EJ Index for Lead Paint	61	59
EJ Index for Superfund Proximity	86	82
EJ Index for RMP Facility Proximity	76	70
EJ Index for Hazardous Waste Proximity	70	65
EJ Index for Underground Storage Tanks	76	76
EJ Index for Wastewater Discharge	84	84



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

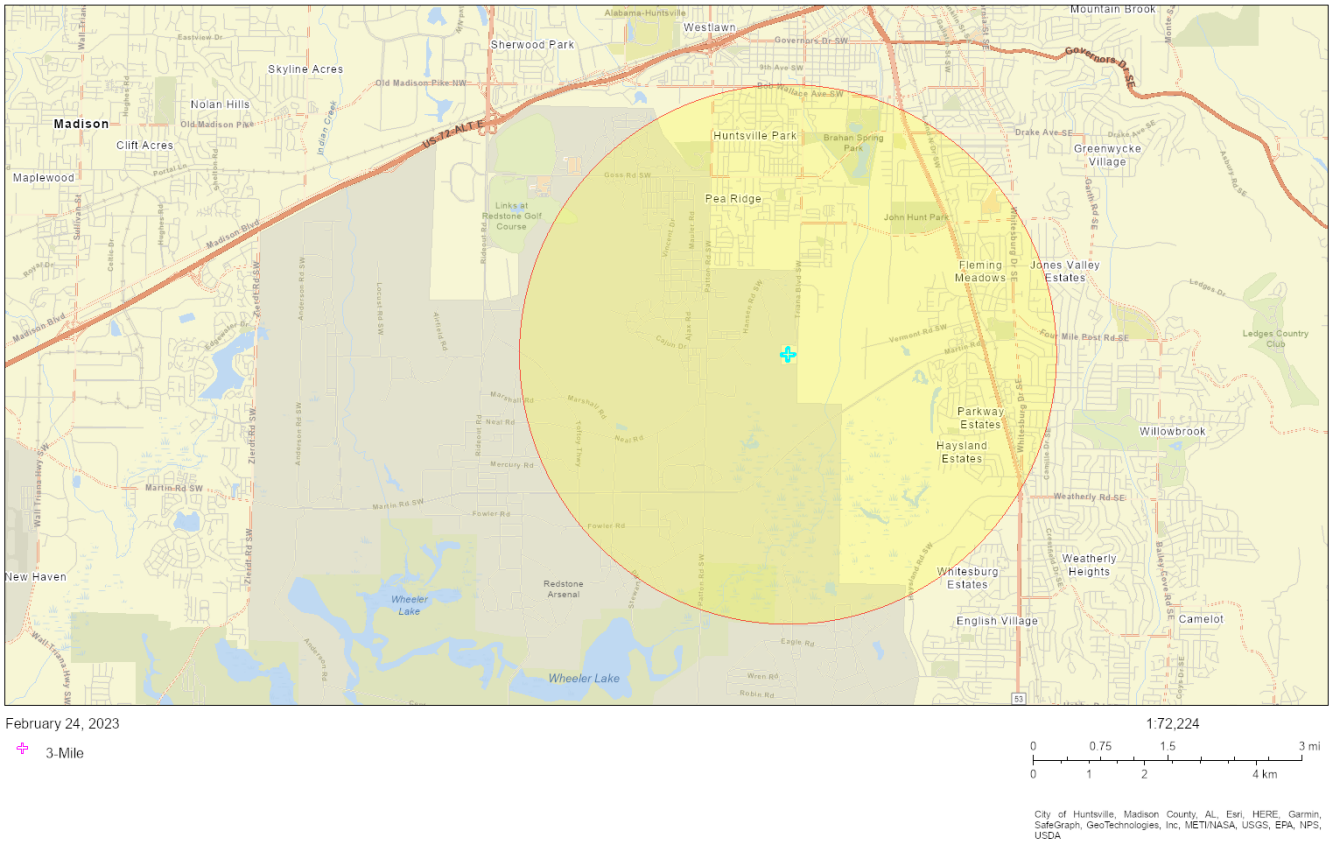
EJScreen Report (Version 2.1)

3 miles Ring Centered at 34.669641,-86.612263, ALABAMA, EPA Region 4

Approximate Population: 25,230

Input Area (sq. miles): 28.27

3-Mile



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJScreen Report (Version 2.1)

3 miles Ring Centered at 34.669641,-86.612263, ALABAMA, EPA Region 4

Approximate Population: 25,230

Input Area (sq. miles): 28.27

3-Mile

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 (µg/m^3)	8.59	8.92	27	8.67	50
Ozone (ppb)	42.7	39	92	42.5	55
Diesel Particulate Matter* (µg/m^3)	0.328	0.223	79	0.294	60-70th
Air Toxics Cancer Risk* (lifetime risk per million)	30	35	53	28	80-90th
Air Toxics Respiratory HI*	0.42	0.47	45	0.36	80-90th
Traffic Proximity (daily traffic count/distance to road)	480	290	84	760	65
Lead Paint (% Pre-1960 Housing)	0.15	0.17	54	0.27	41
Superfund Proximity (site count/km distance)	0.12	0.051	92	0.13	72
RMP Facility Proximity (facility count/km distance)	0.37	0.46	69	0.77	53
Hazardous Waste Proximity (facility count/km distance)	0.64	0.9	59	2.2	48
Underground Storage Tanks (count/km^2)	3.2	1.9	79	3.9	68
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.026	0.36	82	12	76
Socioeconomic Indicators					
Demographic Index	47%	38%	69	35%	72
People of Color	46%	35%	66	40%	64
Low Income	49%	36%	69	30%	79
Unemployment Rate	4%	6%	51	5%	51
Limited English Speaking Households	5%	1%	91	5%	74
Less Than High School Education	15%	13%	59	12%	71
Under Age 5	6%	6%	58	6%	58
Over Age 64	16%	17%	45	16%	52

*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

For additional information, see: www.epa.gov/environmentaljustice

EJScreen Report (Version 2.1)

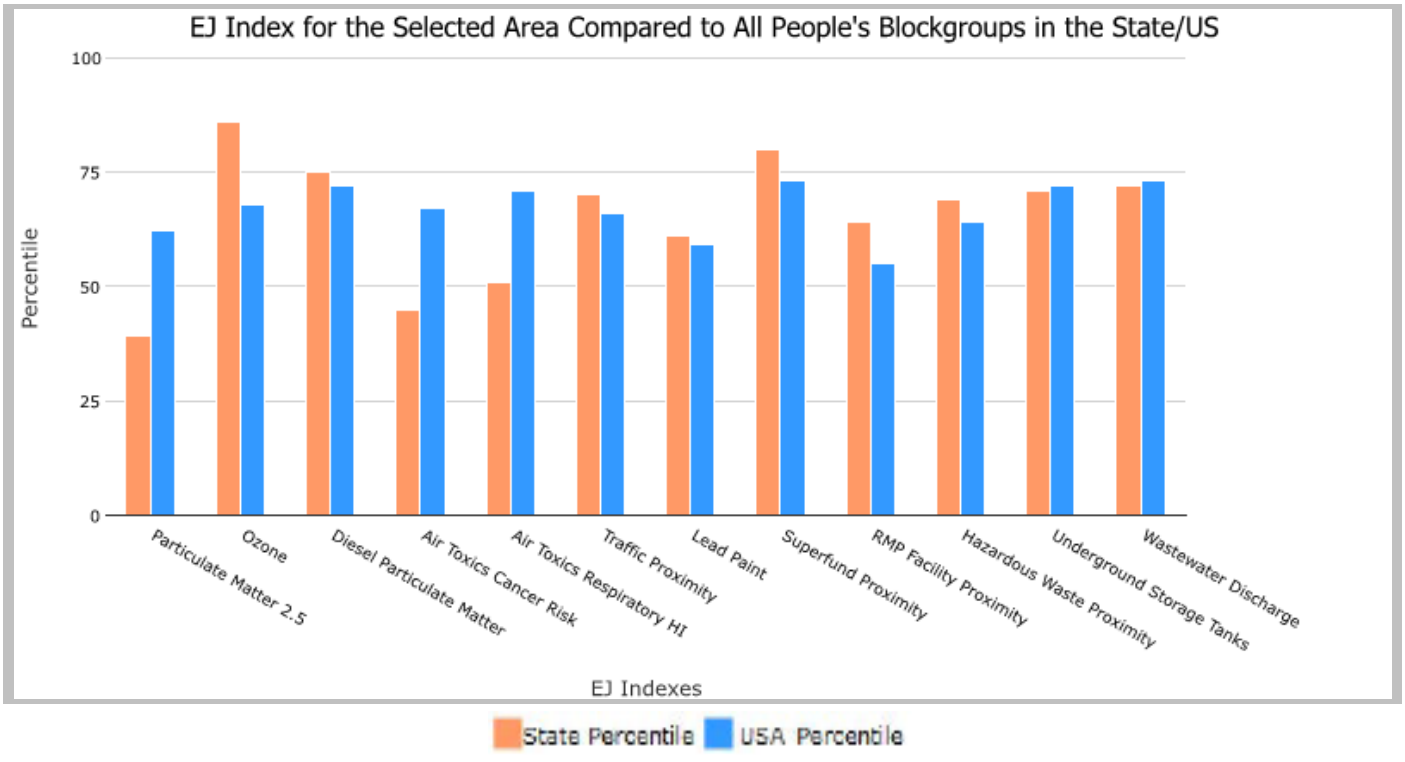
5 miles Ring Centered at 34.669641,-86.612263, ALABAMA, EPA Region 4

Approximate Population: 82,667

Input Area (sq. miles): 78.53

5-Mile

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	39	62
EJ Index for Ozone	86	68
EJ Index for Diesel Particulate Matter*	75	72
EJ Index for Air Toxics Cancer Risk*	45	67
EJ Index for Air Toxics Respiratory HI*	51	71
EJ Index for Traffic Proximity	70	66
EJ Index for Lead Paint	61	59
EJ Index for Superfund Proximity	80	73
EJ Index for RMP Facility Proximity	64	55
EJ Index for Hazardous Waste Proximity	69	64
EJ Index for Underground Storage Tanks	71	72
EJ Index for Wastewater Discharge	72	73



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

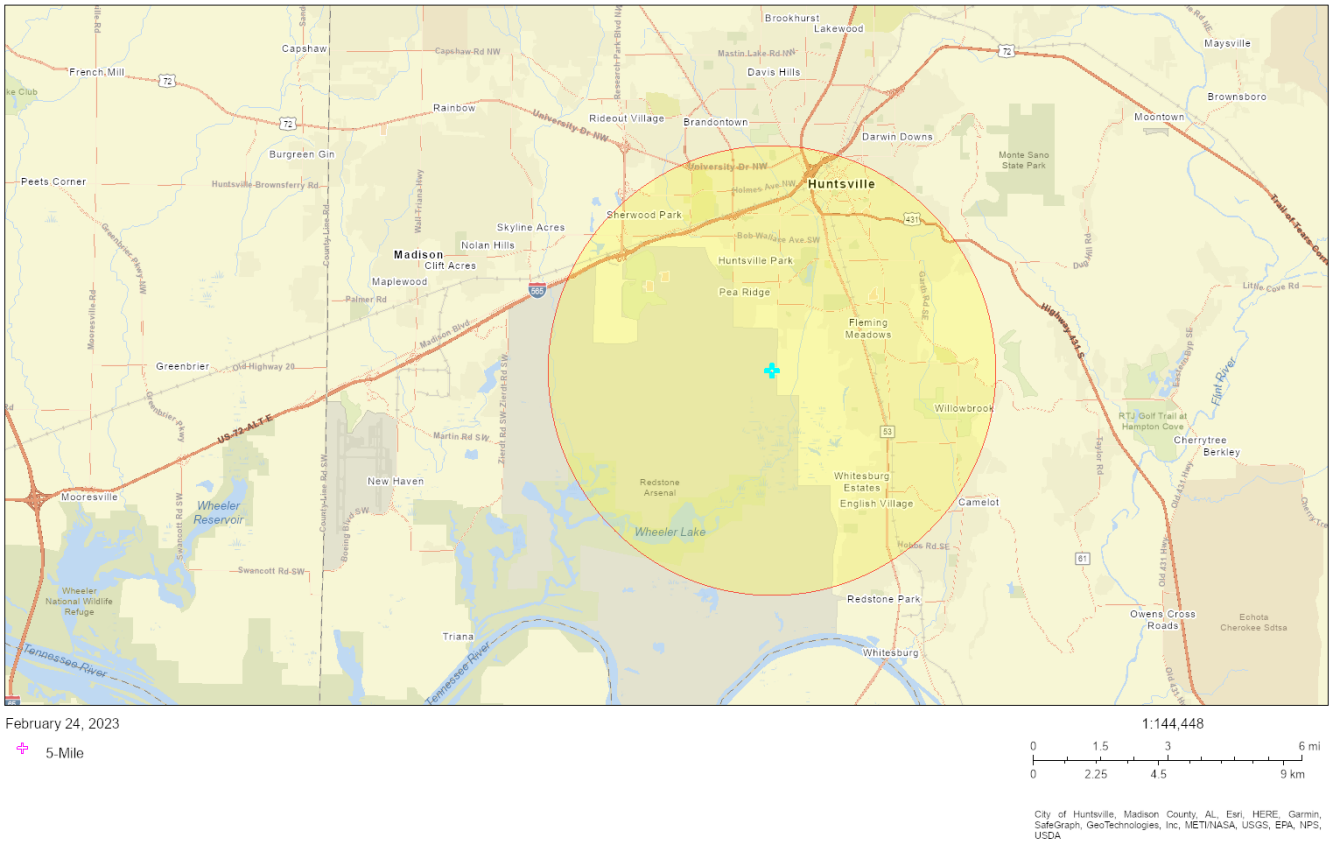
EJScreen Report (Version 2.1)

5 miles Ring Centered at 34.669641,-86.612263, ALABAMA, EPA Region 4

Approximate Population: 82,667

Input Area (sq. miles): 78.53

5-Mile



Sites reporting to EPA	
Superfund NPL	1
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	6

EJScreen Report (Version 2.1)

5 miles Ring Centered at 34.669641,-86.612263, ALABAMA, EPA Region 4

Approximate Population: 82,667

Input Area (sq. miles): 78.53

5-Mile

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 (µg/m^3)	8.56	8.92	25	8.67	49
Ozone (ppb)	42.6	39	90	42.5	54
Diesel Particulate Matter* (µg/m^3)	0.334	0.223	80	0.294	60-70th
Air Toxics Cancer Risk* (lifetime risk per million)	30	35	53	28	80-90th
Air Toxics Respiratory HI*	0.43	0.47	53	0.36	80-90th
Traffic Proximity (daily traffic count/distance to road)	710	290	90	760	74
Lead Paint (% Pre-1960 Housing)	0.18	0.17	60	0.27	45
Superfund Proximity (site count/km distance)	0.1	0.051	89	0.13	67
RMP Facility Proximity (facility count/km distance)	0.28	0.46	63	0.77	47
Hazardous Waste Proximity (facility count/km distance)	1.2	0.9	72	2.2	59
Underground Storage Tanks (count/km^2)	4.4	1.9	85	3.9	75
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.024	0.36	81	12	75
Socioeconomic Indicators					
Demographic Index	36%	38%	56	35%	60
People of Color	37%	35%	59	40%	57
Low Income	36%	36%	48	30%	63
Unemployment Rate	5%	6%	54	5%	55
Limited English Speaking Households	3%	1%	87	5%	67
Less Than High School Education	11%	13%	44	12%	59
Under Age 5	6%	6%	63	6%	62
Over Age 64	17%	17%	52	16%	57

*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

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