

2010 Primary 1-Hour Sulfur Dioxide (SO₂) Standard – Air Quality Designations

On June 2, 2010, United States Environmental Protection Agency (U.S. EPA) established the primary 1-hour sulfur dioxide (SO₂) standard.¹ The new standard, 75 parts per billion (ppb), is attained when the 99th percentile of 1-hour daily maximum concentrations, averaged over three years, is not exceeded. At that time, U.S. EPA also revoked two previous primary standards requiring the evaluation of SO₂ concentrations on both a 24-hour basis and an annual basis. The 2010 primary 1-hour SO₂ standard is more stringent than both the previous 24-hour and annual primary SO₂ standards.

Implementation of the 2010 primary 1-hour SO₂ standard is being completed in several steps. On August 5, 2013, U.S. EPA completed an initial round (i.e. Round 1) of nonattainment designations in areas where existing ambient air quality monitors showed violations of the standard.² Table 1 lists the areas in Indiana that were included in U.S. EPA’s initial round of nonattainment area designations.

Table 1: Round 1 Nonattainment Areas

County	Affected Area	Date Designated Nonattainment	Effective Date of Nonattainment Designation	State Implementation Plan Due	Attainment Date	Date Reclassified (Effective) to Attainment With Maintenance Plan	Date Maintenance Plan is to be Revised (8 years after being Redesignated)	Notes
Daviess	Veale Township	8/3/2013	10/4/2013	4/6/2015	10/4/2018	4/30/2021 86 FR 12107	4/30/2029	
Marion	Center, Perry, and Wayne Townships	8/3/2013	10/4/2013	4/6/2015	10/4/2018	5/21/2020 85 FR 30844	5/21/2028	
Morgan	Clay and Washington Townships	8/3/2013	10/4/2013	4/6/2015	10/4/2018	9/16/2020 85 FR 57736	9/16/2028	
Pike	Washington Township	8/3/2013	10/4/2013	4/6/2015	10/4/2018	4/30/2021 86 FR 12107	4/30/2029	
Vigo	Fayette and Harrison Townships	8/3/2013	10/4/2013	4/6/2015	10/4/2018	7/8/2019 84 FR 32317	7/8/2027	

¹ <https://federalregister.gov/a/2010-13947> (75 FR 35520)

² <https://federalregister.gov/a/2013-18835> (78 FR 47191)

Following the initial round of nonattainment area designations in 2013, U.S. EPA entered into a consent decree with the Sierra Club and the Natural Resources Defense Council establishing a timeline for the completion of air quality characterizations and designations in all remaining areas of the country. The court order directed U.S. EPA to complete the designations in three additional rounds: Round 2 by July 2, 2016, Round 3 by December 31, 2017, and Round 4 by December 31, 2020.

To address Round 2 designations certain large sources were identified and evaluated to determine potential designations.³

On July 12, 2016, U.S. EPA issued final Round 2 air quality designations under the 2010 primary 1-hour SO₂ standard.⁴ Table 2 lists the areas in Indiana that were included in U.S. EPA’s Round 2 area designations.

Table 2: Round 2 Air Quality Designations

County	Affected Facility	Affected Area	Date Designated	Effective Date of Designation	Designation
Gibson	Duke Energy Gibson Generating Station	Full County	7/12/2016	9/12/2016	Attainment/Unclassifiable
Jefferson	IKEC Clifty Creek Power Plant	Partial County (Graham, Lancaster, Madison, Monroe, Republican, Shelby and Smyrna Townships)	7/12/2016	9/12/2016	Attainment/Unclassifiable
LaPorte	NIPSCO – Michigan City Generating Station	Full County	7/12/2016	9/12/2016	Attainment/Unclassifiable
Posey	Vectren – A.B. Brown Generating Station	Partial County (Bethel, Center, Harmony, Lynn, Marrs, Robb, Robinson and Smith Townships)	7/12/2016	9/12/2016	Attainment/Unclassifiable
Spencer	AEP – Rockport Generating Station	Partial County (portion of Ohio Township north of UTM 4187.580 km northing, and Carter, Clay, Grass, Hammond, Harrison and Jackson Townships)	7/12/2016	9/12/2016	Attainment/Unclassifiable

To address Round 3 and 4 designations, on August 21, 2015, U.S. EPA finalized the Data Requirements Rule (DRR), which required states to characterize air quality around additional large sources or sources identified by IDEM or U.S. EPA “as requiring further air quality characterization.”⁵ Round 3 DRR sources were evaluated using ambient air modeling. Round 4 DRR sources are being evaluated by conducting new ambient air monitoring.

³ <https://www.epa.gov/sulfur-dioxide-designations/so2-designations-round-2-indiana-state-recommendation-and-epa-response>

⁴ <https://federalregister.gov/a/2016-16348> (81 FR 45039)

⁵ <https://federalregister.gov/a/2015-20367> (80 FR 51052)

On January 9, 2018, U.S. EPA issued final Round 3 air quality designations under the 2010 primary 1-hour SO₂ standard. Table 3 lists the areas in Indiana that were included in U.S. EPA’s Round 3 area designations.⁶

Table 3: Indiana’s Round 3 Designation Recommendations

County	Affected Facility	Affected Area	Date Designated	Effective Date of Designation	Designation
Floyd	Duke Energy Gallagher Station	Full County	1/9/2018	4/9/2018	Attainment/Unclassifiable
Huntington	U.S. Mineral Products (Isolatek)	Huntington Township	1/9/2018	4/9/2018	Nonattainment ^a (See Table 4)
Jasper	NIPSCO R.M. Schahfer Station	Full County	1/9/2018	4/9/2018	Attainment/Unclassifiable
Lake	Cleveland – Cliffs Steel (316) ^b , Cokenergy, U.S. Steel – Gary Works	Full County	1/9/2018	4/9/2018	Attainment/Unclassifiable
Posey	SABIC Innovative Plastics	Full County	1/9/2018	4/9/2018	Attainment/Unclassifiable
Sullivan	Hoosier Energy Merom Station	Full County	1/9/2018	4/9/2018	Attainment/Unclassifiable
Vermillion	Duke Energy Cayuga Station	Full County	1/9/2018	4/9/2018	Attainment/Unclassifiable
Warrick	Alcoa Warrick Power Plant, Alcoa Warrick Operations	Full County	1/9/2018	4/9/2018	Attainment/Unclassifiable
Remaining areas in Indiana except for Porter County ^c		Remaining Full or Partial Counties	1/9/2018	4/9/2018	Attainment/Unclassifiable

^a U.S. EPA is designating the remainder of the county as attainment/unclassifiable.

^b Formerly known as ArcelorMittal Steel USA.

^c Except for areas that are associated with sources for which Indiana elected to install and began timely operation of a new SO₂ monitoring network meeting U.S. EPA specifications referenced in U.S. EPA’s SO₂ DRR (i.e., Porter County, *see* Table 5), U.S. EPA is designating the remaining undesignated counties (or portions of counties) in Indiana as separate “attainment/unclassifiable.”

⁶ <https://federalregister.gov/a/2017-28423> (83 FR 1098)

Table 4 lists the areas in Indiana that were included in U.S. EPA’s Round 3 nonattainment area designations.

Table 4: Round 3 Nonattainment Areas

County	Affected Area	Date Designated Nonattainment	Effective Date of Nonattainment Designation	State Implementation Plan Due	Attainment Date	Date Reclassified (Effective) to Attainment w/ Maintenance Plan	Date Maintenance Plan is to be Revised (8 years after being Redesignated)	Notes
Huntington	Huntington Township	1/9/2018	4/9/2018	10/9/2019	4/9/2023			

On March 18, 2019, after reviewing available science, U.S. EPA concluded that the primary 1-hour SO₂ standard provided the requisite level of public health protection, and therefore retained the original standard.⁷

On March 26, 2021, U.S. EPA issued final Round 4 air quality designations under the 2010 primary 1-hour SO₂ standard. Table 5 list the area in Indiana that was included in U.S. EPA’s Round 4 area designations.⁸

Table 5: Round 4 Air Quality Designations

County	Affected Facility	Affected Area	Date Designated	Effective Date of Designation	Designation
Porter	Cleveland – Cliffs Steel Burns Harbor ^a	Full County	3/26/2021	4/30/2021	Attainment/Unclassifiable

^a Formerly known as ArcelorMittal Burns Harbor.

⁷ <https://federalregister.gov/a/2019-03855> (84 FR 9866)

⁸ <https://federalregister.gov/a/2021-05397> (86 FR 16055)