ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
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JB PRITZKER, GOVERNOR **JOHN J. KIM**, DIRECTOR

Debra Shore
Regional Administrator
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3507

Re: Redesignation Request and Maintenance Plan for the Alton Nonattainment Area for the 2010 1-Hour Sulfur Dioxide National Ambient Air Quality Standard

Dear Administrator Shore,

The Illinois Environmental Protection Agency ("Illinois EPA"), on behalf of the State of Illinois, and pursuant to Sections 107(d)(3)(E), 110(a)(2), 175A, and 191 of the Clean Air Act (CAA) and Section 4 of the Illinois Environmental Protection Act (415 ILCS 5/4), requests that the Alton nonattainment area ("NAA") be redesignated to attainment for the 2010 1-hour sulfur dioxide ("SO_2") National Ambient Air Quality Standard ("NAAQS"). The Illinois EPA hereby submits its Redesignation Request and Maintenance Plan for the Alton Township Sulfur Dioxide Nonattainment Area for the 2010 Sulfur Dioxide Standard as a revision to Illinois' State Implementation Plan ("SIP"). Approval is requested for this SIP revision, as well as for the SO_2 emissions inventory being provided in accordance with CAA Section 172(c)(3).

The nonattainment designation for the Alton area was published in the *Federal Register* on July 12, 2016 (81 FR 45039) and became effective on September 12, 2016. The Illinois EPA developed and implemented a modeling analysis for this NAA that incorporated reductions in allowable emissions demonstrating attainment with the NAAQS. This attainment demonstration was submitted to USEPA in December 2018. USEPA took final action to approve the attainment demonstration through *Federal Register* publication on February 21, 2023 (88 FR 10464). The permanent and enforceable nature of the allowable emissions reductions achieved since the attainment demonstration, combined with emissions inventories demonstrating decreased allowable and actual emissions between 2017 and 2022, demonstrate that the Alton area should be redesignated to attainment.

Included with the Redesignation Request and Maintenance Plan is the Alton area SO_2 Emissions Inventory for the years 2017, 2022, and 2035. The Emissions Inventory is required as part of Illinois EPA's redesignation request.

Illinois EPA hereby certifies and confirms that this request meets the requirements for redesignation under Sections 107(d)(3)(E), 110(a)(2), and 175A of the CAA for the Alton NAA for the 2010 SO_2 NAAQS. In accordance with 40 CFR 51.102, public notice of the SIP submittal and request for public comment and hearing was posted on the Illinois EPA's dedicated webpage for public notices on August 4, 2023. No comments or a request for hearing were received, and no hearing was held. Therefore, the Redesignation Request-Maintenance Plan was finalized and effective September 6, 2023. The Redesignation Request-Maintenance Plan, Emissions Inventory, and public participation documentation are included as attachments to this letter.

This SIP revision meets the criteria for completeness pursuant to 40 CFR Part 51, Appendix V, Criteria for Determining the Completeness of Plan Submissions. The request is being submitted via the USEPA's eSIP submission system. A list of the submitted documents is attached.

If you have any questions, please contact Rory Davis, Regulatory Development Unit Manager, at Rory.Davis@illinois.gov or at (217) 782-7397.

Sincerely,

John J. Kim
Director, Illinois EPA

Attachments

List of Documents Provided

1. Redesignation Request and Maintenance Plan for the Alton Township Sulfur Dioxide Nonattainment Area for the 2010 Sulfur Dioxide Standard
2. Notice of Public Information posted on Illinois EPA's dedicated public notice webpage on August 4, 2023
3. Screenshot of public notice posting
4. Verification that No Public Hearing Will Be Held, signed and posted September 6, 2023
5. Screen shot of verification that no public hearing will be held

Attachment 1

Redesignation Request and Maintenance Plan for the Alton Township Sulfur Dioxide Nonattainment Area for the 2010 Sulfur Dioxide Standard

AQPSTR 23-02

July 2023

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST
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LIST OF ACRONYMS

CAA	Clean Air Act
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
DRR	Data Requirements Rule
EAF	Electric Arc Furnace
Illinois EPA	Illinois Environmental Protection Agency
LMF	Ladle Metallurgy Facility
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standard
ppb	parts per billion
PSD	Prevention of Significant Deterioration
RACM	Reasonably Available Control Measures
RACT	Reasonably Available Control Technology
RFP	Reasonable Further Progress
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TSD	Technical Support Document
USEPA	United States Environmental Protection Agency
$\mu g/m^3$	micrograms per cubic meter

Executive Summary

This document is Illinois' Redesignation Request and Maintenance Plan for the one-hour sulfur dioxide ("SO_2") National Ambient Air Quality Standard ("NAAQS") for the Alton Township nonattainment area ("NAA"), hereafter referred to as the Alton NAA. An approved Maintenance Plan is required before the area can be redesignated from nonattainment to attainment of the NAAQS. This document provides the technical information required to support a redesignation of the Alton NAA, which the Illinois Environmental Protection Agency ("Illinois EPA") is submitting in conjunction with the included Maintenance Plan to the United States Environmental Protection Agency ("USEPA") as a revision to Illinois' State Implementation Plan ("SIP").

Illinois EPA submitted an Attainment Demonstration for the Alton NAA to USEPA on December 3, 2018, and it was approved as a SIP revision effective on March 23, 2023. The modeling utilized by Illinois EPA for this Attainment Demonstration is summarized in the Technical Support Document ("TSD") titled *Illinois Sulfur Dioxide (SO2) Attainment Demonstration: Alton Township (Madison County) Revised,* created on September 7, 2018. This TSD demonstrated that modeled nonattainment of the Alton NAA was primarily attributable to emissions associated with the Alton Steel, Inc. ("Alton Steel") facility in Alton, Illinois, and the Ameren Missouri – Sioux Energy Center ("Ameren – Sioux") located near Portage des Sioux, Missouri. Since this Attainment Demonstration was submitted and approved, Alton Steel has been issued a Construction Permit, and Ameren – Sioux has accepted an SO_2 emissions limit contained within a Consent Agreement approved into the Missouri SIP (87 FR 68634), both of which function to mitigate the factors that led to the modeled nonattainment in the area. These new requirements for Alton Steel and Ameren – Sioux are both permanent and federally enforceable.

The proposed Maintenance Plan provides for continued attainment of the 2010 one-hour SO_2 standard for the Alton NAA for a period of at least ten years after USEPA has formally redesignated the areas to attainment. The Maintenance Plan also provides assurances that, even if there is a subsequent violation of the air quality standard, contingency measures included in the plan will be triggered to prevent any future occurrences.

Illinois EPA is requesting that USEPA redesignate the Alton SO_2 NAA to attainment pursuant to the provisions of Clean Air Act ("CAA") Section 107, and that it approve the associated Maintenance Plan as a SIP revision fulfilling the requirements of CAA Section 175A.

1.0 Introduction

Illinois EPA has prepared this document to provide USEPA with the technical information needed to support a request to redesignate the Alton NAA to attainment. Illinois' Maintenance Plan for the Alton Township in Madison County provides for continued attainment of the NAAQS following redesignation.

1.1 Regulatory Background

USEPA promulgated revisions to the primary NAAQS for SO_2 that became effective on August 23, 2010. The one-hour SO_2 standard was set at a level of 75 parts per billion ("ppb"), and is attained when the three-year average of the annual 99th -percentile of one-hour daily maximum monitored concentrations does not exceed that level at any ambient air monitor in an area, as determined in accordance with Title 40 of the Code of Federal Regulations ("40 CFR") Part 50, Appendix T. Area designations under the first round of implementation of the primary one-hour SO_2 NAAQS were published on August 5, 2013.

USEPA's implementation of the primary SO_2 NAAQS did not include designations for the entire country within the two-year timeframe specified by the CAA. In correspondence dated March 20, 2015, the USEPA Administrator provided the Illinois EPA Director with an update on the status of the implementation process, stating: "On March 2, 2015, the U.S. District Court for the Northern District of California accepted as an enforceable order an agreement between the EPA and Sierra Club and Natural Resources Defense Council to resolve litigation concerning the deadline for completing the designations." The correspondence further stated that, under the schedule specified in the consent decree, USEPA was first required to complete designations for the following, referenced as "Round 2" designations: (1) areas that have newly monitored violations of the 2010 SO_2 standard, and (2) areas that contain any stationary source that according to the EPA's Air Markets Database either emitted more than 16,000 tons of SO_2 in 2012 or emitted more than 2,600 tons of SO_2 and had an emission rate of at least 0.45 lbs SO_2/mmbtu in 2012 and that has not been announced as of March 2, 2015 for retirement." Illinois had five stationary sources that met one or both criteria under the second category above. In response to USEPA's identification of these sources , Illinois EPA conducted air quality analyses evaluating the ambient impacts of these identified sources and associated background sources. These modeling results were the primary source of information supporting updated area recommendations for USEPA's consideration. Of the five sources identified, only one (Wood River Power Plant) in combination with other background sources modeled a violation of the standard, and as such Illinois EPA's submittal included a nonattainment recommendation for a portion of Alton Township in Madison County. The portion of the Madison County is shown in figure 2.1.

Figure 1: Map of Alton NAA

The area included the portion of Alton Township east of the Corporal Belchik Memorial Expressway, south of East Broadway Street, South of Route 3, and north of Route 143. USEPA finalized the designations for the areas surrounding the five sources on July 12, 2016, designating the above area as nonattainment and all other areas as attainment or unclassifiable.

The stationary source that met the criteria under the second grouping of the "Round 2" designation criteria was the Wood River Power Plant. The Alton NAA Attainment Demonstration submitted by Illinois EPA on December 3, 2018, did not include the Wood River Power Station among the sources modeled, as the facility was retired in June 2016.The Attainment Demonstration instead demonstrated that modelled nonattainment in the area was primarily attributable to allowable SO2 emissions associated with Alton Steel and Ameren – Sioux. For Alton Steel, the emissions from four downward-facing vents previously exiting the source's baghouse for the Ladle Metallurgy Facility ("LMF") were the primary contributors to modelled nonattainment.

Alton Steel was issued Construction Permit #18020009 (provided as Appendix A to this document) on March 14, 2019, which required installation of a new vertical stack for the LMF baghouse, removal and sealing of the former downward-facing vents, and notification to Illinois EPA for any future changes to the vertical stack that would potentially act to reduce the dispersion of SO_2 emissions from the LMF baghouse. Additionally, and more recently, Ameren – Sioux was issued Administrative Order on Consent No. APCP-2021-018 on December 12,

2021, which was adopted into the Missouri SIP on March 31, 2022 (provided as Appendix B to this document). This Consent Agreement established an enforceable SO_2 emissions limit for the two coal-fired boilers at Ameren – Sioux, with associated monitoring, recordkeeping, and reporting requirements. This SO_2 limit reduces allowable SO_2 emissions from Ameren – Sioux below the levels that had created modelled nonattainment.

These federally enforceable measures, in combination with emissions inventories that demonstrate decreasing SO_2 emissions in the Alton NAA since Illinois' Attainment Demonstration submittal, confirm that the factors that created modelled nonattainment have been resolved. This is discussed in more detail in Section 3.0 of this document.

2.0 Redesignation and Maintenance Plan Requirements

CAA Section 107(d)(3)(E) establishes specific conditions that must be met before a nonattainment area can be redesignated to attainment. This document addresses each of these requirements and provides additional information to support continued compliance with the one-hour SO_2 standard. This redesignation request and the Maintenance Plan are being submitted concurrently, in accordance with the September 4, 1992, USEPA guidance memorandum *Procedures for Processing Requests to Redesignate Areas to Attainment.*

The requirement in CAA Section 107(d)(3)(E)(i) is met when the design value, which is based on the average of three consecutive years of the 99th percentile daily maximum one-hour concentration, is less than or equal to the standard of 75 ppb. Sections 3.0 and 5.0 of this document provide a detailed discussion of the modeling and control measures supporting this redesignation request.

The redesignation requirement in CAA Section 107(d)(3)(E)(ii) specifies that the SIP for the nonattainment areas, under Section 110(k), must be fully approved by USEPA. As noted previously, USEPA approved Illinois' Attainment Demonstration for the 2010 one-hour SO_2 primary NAAQS for the Alton NAA, effective March 23, 2023.

The requirement in CAA Section 107(d)(3)(E)(iii) involves a determination by USEPA "that the improvement in air quality is due to permanent and enforceable reductions in emissions" from the state's SIP, federal regulations, and/or other means. Therefore, USEPA must determine that the improvement in air quality between the year violations occurred and the attainment year is attributable to permanent and enforceable emission reductions. This redesignation request is based on control measures and emissions limitations that are contained in a federally enforceable construction permit and a Consent Agreement, both of which have been adopted into their respective State Implementation Plans and include monitoring, recordkeeping, and reporting requirements for compliance. The control measures and emissions reductions resulting from these are permanent and enforceable.

The redesignation requirement specified in CAA Section 107(d)(3)(E)(iv) relies upon USEPA approval of the Maintenance Plan required under CAA Section 175A(a). Section 175A(a) states, "Each State which submits a request under section 107(d) for redesignation of a nonattainment area for any air pollutant as an area which has attained the national primary ambient air quality standard for that air pollutant shall also submit a revision of the applicable State implementation

plan to provide for the maintenance of the national primary ambient air quality standard for such air pollutant in the area concerned for at least 10 years after the redesignation. The plan shall contain such additional measures, if any, as may be necessary to ensure such maintenance." The Illinois Maintenance Plan, prepared in accordance with the requirements specified in USEPA's guidance documents, will provide for continued attainment after the area has been formally redesignated.

Lastly, CAA Section 107(d)(3)(E)(v) conditions approval of a redesignation request on the State meeting "all requirements" applicable to the NAA "under Section 110 and Part D." CAA Section 110 Part D specifies that, "Each State shall...adopt and submit to the Administrator...a plan which provides for implementation, maintenance, and enforcement" of the primary and secondary ambient air quality standards. Among its many other provisions are the requirements for the "establishment and operation of appropriate devices, methods, systems, and procedures necessary to...monitor, compile, and analyze data...," and the adequate authority and resources to carry out the implementation plan.

CAA Section Part D provides general requirements for areas designated nonattainment, including Reasonable Further Progress ("RFP"), Reasonably Available Control Methods ("RACM"), Reasonably Available Control Technology ("RACT"), and a current actual emissions inventory, for inclusion in nonattainment plan submittals. Other requirements under Part D remain applicable because they are not directly related to attainment of the NAAQS. Subsequent to the approval of Illinois' Attainment Demonstration for the NAA, the emissions inventory requirement is the sole outstanding Part D requirement, and it is fully addressed by this submittal.

To assist regulatory authorities in preparing redesignation demonstrations, USEPA issued the aforementioned detailed guidance memorandum. One of the requirements specified in that guidance is the development of a Maintenance Plan, which is intended to ensure continued attainment of the SO_2 NAAQS in future years. In accordance with CAA Section 110(a)(2), Illinois EPA is required to have a public comment period and provide the opportunity for a public hearing on the Maintenance Plan prior to adoption. As indicated in the guidance memorandum, a Maintenance Plan must contain the following elements:

- A comprehensive attainment emissions inventory of SO_2 emissions. Illinois EPA has developed a comprehensive point source emissions inventory for the Alton SO_2 NAA for the years 2017 and 2022.
- A projection of the attainment emissions inventories forward for a period of 10 years following the redesignation, and a demonstration that the projected level of emissions is sufficient to maintain attainment of the 2010 one-hour SO_2 NAAQS. Illinois EPA has developed an emissions inventory for the projection year of 2035. The projected allowable emissions are equivalent to the 2022 attainment year emissions.
- A commitment that, once redesignated, the State will continue to operate an appropriate air quality monitoring network to verify maintenance of the attainment status. As discussed in Section 3.1 below, the initial designation of the Alton area as nonattainment, the Attainment Demonstration approved by USEPA,

and this Redesignation Request are all based on modeling with no consideration of monitored values in the area, which is consistent with USEPA guidance. However, to provide ongoing verification of attainment, Illinois EPA commits to providing to USEPA annual emissions from the LMF stack at Alton Steel as part of Illinois EPA's annual Data Requirements Rule ("DRR") report.

- A demonstration of legal authority to implement and enforce all control measures contained in the SIP. Illinois EPA has the legal authority to develop, propose to the Board, implement, and enforce regulations regarding air pollution including the requirements of this SIP submittal under the Illinois Environmental Protection Act; 415 Illinois Compiled Statues (ILCS) 5/4.
- Provisions for future updates of the inventory to enable tracking the progress of the maintenance demonstration through emissions levels. Illinois EPA is committed to providing future updates of the inventory during the 10-year maintenance period. Illinois EPA regulations found at 35 Illinois Administrative Code 254 require facilities with air pollution operating permits to annually report their emissions to the Agency. In addition, Illinois EPA develops a comprehensive emissions inventory of point, area, and mobile sources every three years in compliance with federal rulemaking.
- Motor vehicle emissions budgets for transportation conformity for the 10-year maintenance period. Illinois EPA has developed motor vehicle emissions budgets that will be used in transportation conformity determinations in the Alton area through 2035.
- A commitment to submit a revised Maintenance Plan eight years after redesignation. Under CAA Section 175A, an area designated as maintenance is required to submit a second Maintenance Plan eight years after redesignation under CAA Section 107(d). This second Maintenance Plan is intended to maintain the NAAQS for 10 years after the expiration of the initial 10-year period. Illinois EPA recognizes the importance of a current Maintenance Plan and commits to updating it as necessary.
- A list of potential contingency measures and a commitment to enact and implement these measures expeditiously if future violations of the NAAQS occur. Illinois EPA is committed to maintaining the 2010 one-hour SO_2 standard in the Alton NAA. Illinois EPA possesses and maintains the ability to confirm the compliance status of sources and to enforce against them in the event of a violation. As explained in Section 6.0, this functions as the necessary contingency measures required by Section 175A(d) of the CAA.

Illinois' Maintenance Plan has been prepared in accordance with the requirements specified in USEPA's guidance, and was further supported by additional guidance from USEPA staff during its development. The following sections of this document describe how USEPA's requirements have been met, and further discuss the adequacy of the maintenance plan and contingency measures.

3.0 Sulfur Dioxide Modeling

USEPA provided general guidance for redesignations in *Procedures for Processing Requests to Redesignate Areas to Attainment* (September 1992)[1], and provided guidance specifically relating to redesignations for SO_2 in *Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions* (April 2014)[2] and *Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard* (March 2015)[3]. A core principle in this guidance is that an evaluation of whether an area is attaining the SO_2 standard shall consider both monitoring and modeling data.

3.1 Monitoring Considerations

The initial designation of the Alton NAA as nonattainment and the subsequent Attainment Demonstration were based entirely on the modeling performed by Illinois EPA summarized in the TSD in Appendix C. This modeling was performed consistent with USEPA guidelines. According to the September 1992 Guidance[1], "For pollutants such as SO_2, a small number of monitors typically is not representative of areawide air quality or areas of highest concentration. When dealing with SO_2, dispersion modeling will generally be necessary to evaluate comprehensively sources' impacts and to determine the areas of expected high concentrations based upon current conditions." The April 2014 USEPA Guidance[2] states, "For SO_2, there are generally two components needed to support an attainment determination, which should be considered interdependently. ... The second component relies on air quality modeling data. If there are no air quality monitors located in the affected area, ...then air quality dispersion modeling will generally be needed to estimate SO_2 concentrations in the area." The March 2015 USEPA Guidance[3] further states, "We recognize that the timeline for designations by July 2, 2016, does not provide for establishment and use of data from new ambient monitors. Therefore, we anticipate that in many areas the most reliable information for informing these designations will be based on source modeling. The EPA has issued guidance on the use of source modeling for this purpose in the SO_2 NAAQS Designations Modeling Technical Assistance Document."

3.2 Modeled Design Values

As referenced previously, the April 2014 Guidance[2] states, "If there are no air quality monitors located in the affected area…then air quality dispersion modeling will generally be needed to estimate SO_2 concentrations in the area." It further clarifies, "Such dispersion modeling should be conducted to estimate SO_2 concentrations throughout the nonattainment area using actual emissions and meteorological information for the most recent three calendar years. This is because, as the EPA has previously explained, the absence of violating monitors, in the context of SO_2, may not in all cases be sufficient to show that areas are not violating, or are not contributing to violations, of the 2010 SO_2 NAAQS." In the original SO_2 Round 2 recommendations submitted by Illinois EPA to USEPA on September 18, 2015, actual emissions

[1] *Procedures for Processing Requests to Redesignate Areas to Attainment* (September 1992). EPA.
[2] *Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions* (April 2014). EPA.
[3] *Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard* (March 2015). EPA

from the Electric Arc Furnace ("EAF") and Ladle Metallurgy Furnace ("LMF") were used in the modeling that demonstrated nonattainment for the Alton NAA.

Once the Alton area was designated nonattainment, Illinois EPA used a modeling analysis incorporating maximum allowable emissions from Alton Steel and other sources contributing to the initial modeled nonattainment (including Ameren – Sioux) into the attainment demonstration for the area. This was consistent with USEPA Guidance[2], as stated in the April 2014 document: "For attainment demonstrations for the 2010 SO_2 NAAQS, the air agency should demonstrate future attainment and maintenance of the NAAQS in the entire area designated as nonattainment by using air quality dispersion modeling (see Appendix W to 40 CFR part 51) to show that the mix of sources and enforceable emission rates in an identified area will not lead to a violation of the SO_2 NAAQS. For a short term one-hour standard, the EPA believes that dispersion modeling, using allowable emissions and addressing stationary sources in the affected area (and in some cases those sources located outside the nonattainment area which may affect attainment in the area) is technically appropriate, efficient and effective in demonstrating attainment in nonattainment areas because it takes into consideration combinations of meteorological and emission source operating conditions that can contribute to peak ground-level concentrations of SO_2."

The approved Attainment Demonstration for the Alton NAA considered maximum allowable emissions from both Alton Steel and Ameren – Sioux, modeled violations were shown throughout the Alton NAA, "with some violations primarily due to Alton Steel, but many more violations due to contributions from the Ameren – Sioux power plant. The maximum predicted 99th percentile 1-hour average concentration ("design value") was 303.5 micrograms per cubic meter ("$\mu g/m^3$") and principally due to Alton Steel, Inc." This value and other points of modeled nonattainment were compared to the attainment concentration level of 196.32 $\mu g/m^3$ (determined based on the 75 ppb level of the standard and based on the ideal gas law at standard temperature (68 degrees Fahrenheit) and pressure (1 atmosphere)).

Once the above analysis had been conducted, Illinois EPA concluded "that changing the LMF exhaust configuration from the four downward-angled vents to a single 70-foot high, three-foot diameter stack with an unobstructed (no raincap), vertically-directed exhaust stream (temperature = 408.15 K; flow rate = 64,300 ACFM) would be sufficient to eliminate modeled violations at receptors for which Alton Steel was the principal contributing source." As stated in the introduction to this Redesignation Request, this change was memorialized in Construction Permit #18020009. With this change implemented in the modeling, the maximum predicted 99^{th} percentile one-hour average concentration was 301.8 $\mu g/m^3$. While "well above the NAAQS, the maximum design value and all other modeled violations are primarily due to the impacts of the Ameren – Sioux power plant."

As summarized in the Introduction of this Redesignation Request, since the Attainment Demonstration was submitted on December 3, 2018, Ameren – Sioux has been issued a voluntary Consent Agreement that limits the two coal-fired boilers' combined hourly SO_2 emissions to 7,342 lbs/hour on a 24-hour block average. This Consent Agreement requires use of an SO_2 Continuous Emissions Monitoring System ("CEMS") operated in accordance with 40 CFR Part 75 for monitoring compliance with this limit and requires associated recordkeeping

and reporting. Based on the rated heat input capacity of the boilers (4,920 mmBtu/hr), this Consent Agreement limit is equivalent to an emission rate of 0.746 lbs SO_2/mmBtu, which is compared to a previous equivalent SIP limit of 4.8 lbs SO_2/mmBtu. These values demonstrate that the newly imposed Consent Agreement limits for SO_2 emissions for Ameren – Sioux are adequate to meet the requirements for demonstrating attainment using Illinois EPA's modeling methodology.

3.3 Modeling and Maintenance Plan Requirements

The 2014 USEPA Guidance[2] states, "The EPA will determine whether or not an SO_2 nonattainment area has attained the NAAQS based on air quality monitoring data (when available) and air quality dispersion modeling information for the affected area, and/or a demonstration that the control strategy in the SIP has been fully implemented (compliance records demonstrating that the control measures have been implemented will normally be sufficient to make this demonstration). An additional SIP submittal from the air agency is not required by the CAA, and if the air agency has previously submitted a modeled attainment demonstration, no further modeling would be needed as long as source characteristics (e.g. factors affecting plume height) are still reasonably represented. In that case, demonstration that the control strategy in the SIP has been fully implemented would suffice as evidence that modeling of emissions would show attainment."

The 2014 Guidance[2] then states, "An air agency may generally demonstrate maintenance of the NAAQS by showing that future emissions of SO_2 will not exceed the level of the attainment inventory." It then further clarifies, "Where the state has submitted an attainment plan for SO_2, this plan in many cases can also serve as the basis for the maintenance demonstration for the area. Insofar as attainment plans generally rely on maximum allowable emissions, these plans can generally be considered to demonstrate that the standard will be maintained without regard to any changes in operation rate of the pertinent sources. Such plans may be assumed to provide maintenance for the requisite 10 years and beyond. The EPA would expect the state to verify continued attainment by tracking the compliance status of the pertinent sources."

Therefore, a demonstration that the "source characteristics" fit the criteria for modeled attainment under the initial Attainment Demonstration, in conjunction with a comparison of the current and projected emissions inventories to the one submitted with the 2018 Attainment Demonstration, is sufficient for this Redesignation Request and Maintenance Plan. Section 3.2 above explains how the control measures for the Alton Steel LMF Baghouse and Ameren – Sioux Boilers #1 and #2 achieve this, and Section 4 below demonstrates that the emissions inventory data shows decreased SO_2 emissions compared to the inventory submitted with the 2018 Attainment Demonstration.

Finally, to provide ongoing verification of attainment, Illinois EPA commits to providing USEPA annual emissions from the LMF stack at Alton Steel as part of Illinois EPA's annual Data Requirements Rule ("DRR") report.

4.0 Emissions Inventories for Redesignation Request

The redesignation requirement under CAA Section 107(d)(3)(E)(iii) states that the Administrator must determine that the improvement in air quality between the year that violations occurred and the year that attainment was achieved is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan and applicable federal air pollutant control regulations and other permanent and enforceable reductions. The redesignation request, therefore, should include an evaluation of the improvement in air quality for that period. It should also include a demonstration that projected emissions for the 10-year period following redesignation will be less than the attainment year emissions to ensure that future emissions in the area are sufficient to maintain the SO_2 NAAQS. Illinois EPA commits to providing future updates of the inventory to enable tracking of emissions levels during the 10-year maintenance period and to support the maintenance demonstration.

Table 1: Alton Area and Ameren Sioux Emissions Inventory for 2017, 2022, and 2035

Source Name	2017 Actual Emissions (tons)	2017 Allowable Emissions (tons)	2022 Actual Emissions (tons)	2022 Allowable Emissions (tons)	2035 Allowable Emissions (tons)
Alton Steel Inc.	45.39	275.08	21.80	275.08	275.08
Ameren Sioux	2722.27	203,859.22	1676.36	32,157.96	32,157.96
St Clares Hospital	0.02	0.74	0.02	0.74	0.74
Ardent Mills LLC	0.01	0.03	0.01	0.03	0.03
Alton Memorial Hospital	0.15	1.14	0.15	1.14	1.14
Bluff City Minerals Acquisition LLC	0.01	0.04	-	-	-
St Anthonys Hospital	1.67	3.99	1.67	3.99	3.99
Alton Water Treatment Facility	2.40	2.40	2.40	2.40	2.40
Olin Winchester LLC	0.12	10.66	0.13	10.56	10.56
Wieland Rolled Products North America	0.64	1.57	0.31	1.57	1.57
Premcor Refining Group Inc.	0.001	1.32	0.001	0.44	0.44
Omega Partners Hartford LLC	0	0.13	0	0.13	0.13

Phillips 66 Hartford Lubricant Plant	0	4.10	0.01	0	0
Messer LLC	0	0.08	0	0.08	0.08
Apex Oil Co Inc	0.01	0.1	-	-	-
SOPUS	0	1.41	0	1.41	1.41
WRB Refining LP Wood River Refinery	1494.59	14,945.74	978.13	14,504.40	14,504.40
SOPUS	0	3.70	0	0.10	0.10
Christ Bros Products LLC	5.66	38.10	2.53	38.10	38.10
National Maintenance and Repair	3.33	43.68	2.69	43.68	43.68
Charles E Mahoney	4.70	38.05	5.66	38.05	38.05
Koch Fertilizer LLC	0	2.36	0.01	2.36	2.36
Total	4,280.97	219,233.64	2,691.88	47,082.22	47,082.22

Table 1 demonstrates that total annual actual SO_2 emissions within the Alton NAA (and including Ameren Sioux) decreased by over 1500 tons between 2017 and 2022. It also shows that the total allowable emissions decreased by over 150,000 tons between 2017 and 2022, almost entirely due to the Consent Order limits accepted by Ameren Sioux.

As required by CAA Section 175A(b), Illinois commits to submit to USEPA, eight years after redesignation, a revised version of this Maintenance Plan. The revision will contain Illinois' plan for maintaining the SO_2 NAAQS for ten years beyond the initial maintenance period.

5.0 Control Measures

As discussed previously, the control measures that form the basis for this Redesignation Request consist of a single 70-foot high, three-foot diameter stack with an unobstructed (no raincap), vertically-directed exhaust stream that replaces the previous four downward facing LMF baghouse vents at Alton Steel, and limiting the 24-hour block average of the combined hourly SO_2 emissions for the two Ameren – Sioux coal-fired boilers to 7,342 lbs/hour.

5.1 Controls to Remain in Effect

These control measures are contained in federally enforceable documents (Illinois Construction Permit #18020009 and Missouri Consent Agreement No. APCP-2021-018) that have been adopted into each state's respective SIP and include monitoring, recordkeeping, and reporting that Illinois EPA and Missouri Department of Natural Resources, respectively, will use to

confirm ongoing compliance and to enforce against Alton Steel and Ameren – Sioux in the event of a violation.

Illinois EPA has the necessary resources to enforce any violations of its rules or permit provisions.

5.2 Provisions for Permitting New or Modified Emissions Sources

Illinois has longstanding and fully implemented programs for the review of new major sources and significant modifications of existing sources. The Prevention of Significant Deterioration ("PSD") program, which includes requirements for Best Available Control Technology on major new sources or significant modifications of existing major sources, will be applicable in the Alton NAA once this area has been redesignated to attainment. Illinois' regulations for its PSD program can be found at 35 Illinois Administrative Code Part 204.

6.0 Contingency Measures

Contingency measures, which are a required element of the Maintenance Plan, are to be implemented if violations of the 2010 one-hour SO_2 NAAQS are measured after redesignation to attainment. These measures are intended to provide further emission reductions if needed, and they are to be adopted expeditiously once triggered. The Maintenance Plan must identify the measures that the state will consider and the triggers that determine when the contingency measures will be adopted.

From the 2014 USEPA Guidance[2] states, "that in many cases, attainment revolves around compliance of a single source or a small set of sources with emission limits shown to provide for attainment." The guidance concludes that in such cases, "the EPA interprets 'contingency measures' to mean that the state agency has a comprehensive program to identify sources of violations of the NAAQS and to undertake an aggressive follow-up for compliance and enforcement, including expedited procedures for establishing enforceable consent agreements pending the adoption of revised SIPs." (57 FR 13547). Although this guidance applies to contingency measures for nonattainment plans under section 172(c)(9), the EPA envisions applying a similar policy with respect to the contingency measures required in maintenance plans under section 175A(d), to the extent consistent with section 175A(d)'s requirement that all NAA SIP or FIP requirements be implemented."

Therefore, the contingency measures for this Redesignation Request will consist of ongoing confirmation of compliance with Construction Permit #18020009 and enforcement in the event of violations, as discussed in Section 5 above.

As mentioned previously, Illinois EPA commits to developing and submitting a second 10- year Maintenance Plan, within eight years after redesignation, as required by CAA Section 175(A). The Maintenance Plan revision will analyze and update the contingency plan to provide assurance that any potential future violations will be addressed through application of relevant contingency measures when triggered.

7.0 Conclusion

The Alton SO_2 NAA has attained the 2010 one-hour SO_2 NAAQS and has complied with the applicable provisions of the 1990 Clean Air Act required of SO_2 NAAs. The air quality improvement achieved in this area is due to permanent and enforceable control measures. Through this submittal, Illinois is formally requesting redesignation of the Alton NAA to attainment while simultaneously providing the Maintenance Plan required for redesignation. This submittal fully addresses the redesignation obligations under CAA Section 107 and the applicable Maintenance Plan requirements under CAA Section 175A.

The Maintenance Plan has been prepared in accordance with the requirements specified in USEPA's guidance documents and in consultation with USEPA Region 5 staff. The Maintenance Plan provides for the continued attainment of the 2010 SO_2 NAAQS for a period of at least ten years after redesignation, while also providing adequate contingency measures for potential additional emission reductions in the event of future violations in the area. Illinois has prepared actual and allowable emissions inventories of SO_2 sources for 2017, 2022, and 2035 in the Alton NAA. These demonstrate that expected emissions in the 10 years following redesignation will remain equal to or less than the emissions in 2022. Illinois EPA has the necessary legal authority to implement and enforce SIP-approved control measures in the nonattainment area.

Appendix A - Alton Steel Construction Permit - 18020009

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR JOHN J. KIM, ACTING DIRECTOR

217/782-1705

CONSTRUCTION PERMIT - REVISED

PERMITTEE

Alton Steel, Inc.
Attn: Matt Gill
5 Cut Street
Alton, Illinois 62002

Application No.: 18020009 I.D. No.: 119010AAE
Applicant's Designation: Date Received: February 27, 2019
Subject: New Stack for Ladle Metallurgy Facility (LMF) Baghouse
Date Issued: March 14, 2019
Location: 5 Cut Street, Alton, Madison County

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a new vertical stack for the baghouse for the ladle metallurgy facility (LMF) as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Description

   a. This permit authorizes construction of a new vertical stack and connecting ductwork for the baghouse for the existing Ladle Metallurgy Facility (LMF). The new stack would permanently replace the four existing downward facing vents on the individual compartments of this baghouse. This project is an environmental improvement project that will improve dispersion of the emissions of the LMF. The Permittee has committed to this project to support the attainment demonstration that the Illinois EPA is preparing for the Alton area to support re-designation to attainment for the National Ambient Air Quality Standard for sulfur dioxide (SO_2), on a 1-hour average. This permit makes this commitment enforceable.

   b. This permit does not authorize other changes to LMF or this source.

2. Existing Applicable Requirements

   This permit does not change any existing requirements that apply to the furnace in the LMF. In particular, the SO_2 emission of this furnace shall not exceed 0.10 pound/ton of steel produced, 11.20 pounds/hour and 37.50 tons/year, as provided by Condition 7(b)(i) of Construction Permit 00010015, as restated by Condition 4.2.2(c)(i)(B) of the Clean Air Act Permit Program (CAAPP) permit for the source, Permit 96020056.

3. Design Requirements

The new stack for the baghouse for the LMF shall be designed so emission testing can be readily conducted, including having sampling port(s) for testing that satisfy the requirements of USEPA Reference Method 1.

4. Notification Requirement

a. The Permittee shall notify the Illinois EPA when the new stack for the baghouse for LMF, including the extension addressed by this revised permit is completed. This notification shall be submitted within 30 days of completion and include a diagram for the new stack showing that the test port(s) that complies with the requirements of USEPA Reference Method 1.

b. This notification shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

5. Effectiveness of Construction Permit

a. This construction permit will take effect 36 days after issuance or the day that the Permittee begins construction on this project extension, whichever occurs first. This condition supersedes Standard Condition 1.

b. This project shall be completed by no later than July 31, 2019.

c. Once this project has been completed, the Permittee shall notify the Illinois EPA prior to making any changes to the stack for the baghouse for LMF that would potentially act to reduce the dispersion of emissions and obtain a new or revised construction permit if necessary.

6. Application for Revision to the CAAPP Permit

By October 31, 2019, the Permittee shall apply for a minor modification to its CAAPP permit to specifically address the new stack for the LMF.

7. Authorization for Operation

The Permittee may operate the baghouse for the LMF with this new stack pursuant to this construction permit until the CAAPP permit for the source is renewed or revised to address this new stack. This condition supersedes Standard Condition 6.

It should be noted that this permit has been revised at the request of the Permittee to provide additional time to complete this project. This is because the new stack that has been initially installed is shorter than required due to a mistake in the fabrication drawings. To correct this, a five-foot-long extension will be fabricated and bolted to the new stack to

bring the overall height of this new stack to above the height to which the source has committed. In conjunction with this work, the four former vents on the individual compartments of the baghouse, which have been capped, would now be removed and the openings in the baghouse would be covered and sealed.

If you have any questions on this permit, please contact Minesh Patel at 217/785-1705.

Raymond E. Pilapil
Manager, Permit Section
Bureau of Air

REP:MVP:jlp

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
P. O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.

2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:

    a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,

    b. to have access to and copy any records required to be kept under the terms and conditions of this permit,

    c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,

    d. to obtain and remove samples of any discharge or emission of pollutants, and

    e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

    a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,

    b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,

    c. does not release the Permittee from compliance with the other applicable statues and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,

    d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.

b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.

7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:

a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or

b. upon finding that any standard or special conditions have been violated, or

c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

Missouri Department of NATURAL RESOURCES
dnr.mo.gov
Michael L. Parson, Governor
Dru Buntin, Director

April 14, 2022

Meg McCollister
Regional Administrator
U.S. EPA, Region VII
11201 Renner Boulevard
Lenexa, KS 66219

Dear Meg McCollister:

The Missouri Department of Natural Resources' Air Pollution Control Program (Air Program) hereby submits the following State Implementation Plan (SIP) revision for your approval:

Ameren Sioux Sulfur Dioxide Consent Agreement

Through this submission, the Air Program is requesting that the U.S. Environmental Protection Agency (EPA) take the following action:

- Approve Administrative Order on Consent No.APCP-2021-018 for the Ameren Sioux Energy Center as a revision to the Missouri State Implementation Plan. Specifically, include it as a new item in 40 CFR 52.1320(d).

The Missouri Air Conservation Commission adopted this SIP revision at the March 31, 2022 commission meeting. The commission has full legal authority to develop SIP revisions pursuant to Section 643.050 of the Missouri Air Conservation Law. The Air Program held a public hearing for this proposed SIP revision on January 27, 2022. The Air Program accepted comments on the proposed SIP revision from December 27, 2021 through February 3, 2022. During the public comment period, the Air Program received comments from one (1) commenter. A summary of the comments received and our responses is attached

Enclosed are the required submittal elements for determination of plan completeness per 40 CFR Part 51, Appendix V. The Air Program is providing a searchable pdf version of this submittal through EPA's State Planning Electronic Collaboration System (SPECS) and the Air Program will post the complete submittal package on our website.

Thank you for your attention to this matter. If you have any questions regarding this submittal, please contact Mr. Mark Leath with the Missouri Department of Natural Resources' Air

Pollution Control Program at P.O. Box 176, Jefferson City, MO 65102 or by telephone at (573) 751-4817.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Stephen M. Hall
Director

SMH:vjc

Enclosures:

Copy of SIP revision and appendix
Copy of signature pages certifying MACC adoption
Copy of public hearing notices
Copy of public hearing transcript introductory statement
Copy of recommendation for adoption
Copy of comments and responses

c: Missouri Air Conservation Commission
File: 2010-SO2-9 Ameren Sioux

Missouri State Implementation Plan Revision

Ameren Sioux Sulfur Dioxide Consent Agreement

Prepared for the
Missouri Air Conservation Commission

Adoption
March 31, 2022

Missouri Department of Natural Resources
Division of Environmental Quality
Air Pollution Control Program
Jefferson City, Missouri

Project File: 2010-SO2-9 Ameren Sioux

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APPENDICES

Executive Summary

The purpose of this State Implementation Plan (SIP) revision is to incorporate Consent Agreement No. APCP-2021-018 into Missouri's SIP. This Consent Agreement is between the Missouri Department of Natural Resources' Air Pollution Control Program (Air Program) and the Ameren Missouri (Ameren) – Sioux Energy Center (Sioux). The Consent Agreement establishes an enforceable mechanism for new sulfur dioxide (SO_2) emission limits at Sioux. This will allow the Air Program to rely on these new lower limits in future SIP actions and other technical demonstrations required under the Clean Air Act (CAA).

Ameren entered into this agreement voluntarily as a proactive measure to help strengthen Missouri's SIP, which helps to ensure ongoing air quality in the St. Louis region. In 2010, Ameren installed state-of-the-art SO_2 emission control technology at Sioux as part of their overall environmental strategy. Ameren's willingness to enter into this Consent Agreement as a SIP strengthening measure allows the Air Program to take credit in the SIP for the air quality improvement achieved by Ameren through their SO_2 control strategy at Sioux.

1. Background

On June 22, 2010, the EPA established a new primary 1-hour SO_2 standard of 75 parts per billion (ppb), based on the three-year average of the annual 99th percentile of 1-hour daily maximum concentrations.[1] This new SO_2 standard replaces the previous 24-hour and annual primary SO_2 standards promulgated in 1971.[2] Once EPA establishes or revises a National Ambient Air Quality Standard (NAAQS), the Clean Air Act requires EPA to designate areas as "attainment" (meeting), "nonattainment" (not meeting), or "unclassifiable" (insufficient data).

1.1 Boundary Designations for the 2010 SO_2 Standard

Once EPA establishes or revises a National Ambient Air Quality Standard (NAAQS), the Clean Air Act requires EPA to designate areas as "attainment" (meeting), "nonattainment" (not meeting), or "unclassifiable" (insufficient data). EPA chose a different approach to determine attainment status for the 2010 SO_2 standard. Unlike other criteria pollutants, SO_2 is almost exclusively a point source-emitted pollutant. A monitoring network large enough to adequately cover all large sources would be prohibitively expensive and an affordable network would leave large gaps in coverage. Therefore, EPA decided to use a hybrid monitoring-modeling approach for the boundary designations under the 2010 SO_2 standard.

EPA promulgated designations under this standard for areas throughout the nation in four separate rounds. In the initial round, EPA designated certain areas as nonattainment based on monitoring data from existing monitors showing a violation of the standard but did not act to designate any other areas. In Missouri, EPA designated portions of Jackson and Jefferson Counties as nonattainment for the 2010 SO_2 standard, effective October 4, 2013, but did not designate any remaining areas of the state at that time.[3]

In the second round EPA promulgated designations in areas that contained either a newly violating monitor or a stationary source that –

- emitted at least 16,000 tons of SO_2 in 2012; or
- emitted at least 2,600 tons of SO_2 and had an average emission rate of at least 0.45 lbs. SO_2/MMBtu in 2012.

In second round for Missouri, EPA designated two areas as unclassifiable. This included one area located in a portion of Jackson County, which was outside the original nonattainment area in Jackson County. The other unclassifiable area included portions of Franklin and St. Charles counties. In this second round, EPA also designated one more area in Missouri. This third area included the entirety of Scott County, which EPA designated as attainment/unclassifiable.

In the third round, EPA promulgated final designations for the majority country including all remaining undesignated areas, except those which had elected to install new ambient SO_2

[1] See *75 FR 35520*; promulgated June 22, 2010
[2] See *36 FR 8187*; promulgated April 30, 1971
[3] See *78 FR 47191*; promulgated August 5, 2013

monitors by January 1, 2017.[4] In the third round, EPA designated all of St. Charles County as attainment/unclassifiable, except the portion of the county EPA designated as unclassifiable in round 2. The attainment/unclassifiable designation in round 2 for the majority of St. Charles County included the area surrounding the Ameren Sioux facility.

EPA promulgated the fourth and final round of designations in early 2021. This round included designations for all areas of the country that remained undesignated after the first three rounds. In Missouri, EPA designated a portion of New Madrid County as nonattainment, and all remaining areas in the state as attainment/unclassifiable.

1.2 Ameren Missouri – Sioux Energy Center

Sioux is located in St. Charles County along the Mississippi River, just north of City of the St. Louis. EPA designated the area surrounding Sioux as attainment/unclassifiable in early 2018. With the attainment designation, the Air Program has not needed to develop any new SO_2 requirements for Sioux in Missouri's SIP.

Sioux operates two coal-fired boilers that generate electricity for use in the region. In 2010, Ameren installed wet flue-gas desulfurization control technology to reduce SO_2 emissions from their two boilers. This state-of-the-art control technology reduced the actual SO_2 emissions at Sioux by nearly 90 percent. The installation of this technology was part of Ameren's overall environmental control strategy for various federal Clean Air Act requirements, but was not dictated by any state or federal statute or regulation. Nonetheless, the decision by Ameren to install this technology drove true improvements to air quality for residents living in the region.

Sioux is subject to numerous state and federal air regulations, and is required to operate a continuous emission monitoring system (CEMS) for SO_2 on both of their boilers. This allows for the reporting of actual hourly emission levels coming from the two boilers at the facility. Ameren uses their CEMS to demonstrate compliance with several air regulations they are subject to. The Consent Agreement included in this SIP revision also requires the use of their CEMS to demonstrate compliance with the new enforceable limits in the Consent Agreement.

[4] See *83 FR 1098*; promulgated January 9, 2018

2. Summary of Consent Agreement

The purpose of the Consent Agreement is to provide for the new SO_2 emission limits at Sioux to be credited as an enforceable measure in the SIP. Ameren has voluntarily agreed to enter into this Consent Agreement to strengthen Missouri's SIP. The Consent Agreement includes facility-wide 24-hour block average emission rate limits. A copy of the Consent Agreement is provided in Appendix A.

2.1 SO_2 Emissions Restrictions

The SO_2 emission limit and averaging time included the Consent Agreement for Sioux are provided in Table 1. The limit is listed as a facility-wide limit, but only applies to Boilers 1 and 2 at the facility.

Table 1 – Ameren Missouri Sioux Energy Center - SO_2 Emission Limits

Source	Source ID	Emission Limit per Source (pounds SO_2 per hour)	Averaging Time
Ameren Missouri – Sioux Energy Center	1830001	7,342	24-hour block average

2.2 Monitoring, Recordkeeping, and Reporting Requirements

The Consent Agreement requires Ameren to determine compliance with the emission restrictions by use of the SO_2 CEMS installed at Sioux. Additional details in the Consent Agreement include references to the sections in the Code of Federal Regulations (CFR) that Ameren must follow regarding the operation of the CEMS. The CEMS will be operated in accordance with 40 CFR 75. However, Ameren is not required to use the bias and substitution methods included in 40 CFR 75 when determining compliance with the emission limits included in the Consent Agreement. Instead, the CEMS bias and substitution data that will be used to determine compliance with the Consent Agreement limits will be handled in the same manner as limits associated with federal New Source Performance Standards included in 40 CFR 60.

Ameren will also maintain all hourly data and computations related to demonstrating compliance with the 24-hour block average emission limit and keep this data for a period of at least five years. Ameren shall report on compliance with the emission limits in Table 1 on the same schedule as the annual compliance certification required in accordance with the operating permits issued under 40 CFR Part 70.

2.3 Compliance Determination

The Consent Agreement clarifies how compliance will be determined for the facility-wide SO_2 emission limit listed in Table 1. As specified in paragraph 3.B. in the Consent Agreement,

Ameren will first calculate the calendar-day 24-hour block average emission rate for each unit that is subject to the facility-wide emission limit. Only valid operating hours will be included in the calculations for these daily unit-level emission rates. Once the unit-level emission rates are calculated, Ameren will add these numeric rates together for the units at a facility-level. This sum of all the unit-level emission rates at the facility will then be compared to the limits in Table 1 to determine compliance.

3. Public Participation

In accordance with Section 110(a)(2) of the CAA, the Missouri Air Conservation Commission (MACC) will hold a public hearing prior to adoption of this SIP revision and the subsequent submittal to EPA. The Air Program notified the public and other interested parties of the public hearing and comment period at least 30 days prior to the public hearing for this SIP revision. Specifically –

- Notice of availability of the proposed SIP revision and announcement of the public hearing was posted on the Air Program website by December 27, 2021.
- The MACC held a public hearing to receive comments on the proposed SIP revision on January 27, 2022.
- The Air Program opened a public comment period on December 27, 2021, after posting the proposed SIP revision on the Air Program's website. The public comment period closed on February 3, 2022, seven (7) days after the public hearing.

Conclusion

This action incorporates new SO_2 emission limits for Sioux into the SIP. The Consent Agreement includes the necessary monitoring, recordkeeping, and reporting requirements for determining compliance with the new emission limits. By voluntarily entering into this agreement with the Air Program, Ameren is helping to strengthen Missouri's SIP and provide more protection for air quality in the St. Louis region. This SIP revision has been prepared in accordance with the requirements of the CAA, Missouri statutes, and corresponding state and federal regulations.

Appendix A

Consent Agreement for Ameren Missouri – Sioux Plant

BEFORE THE MISSOURI DEPARTMENT OF NATURAL RESOURCES

In the Matter of:	)	
	)	
AMEREN MISSOURI	)	No. APCP-2021-018
d/b/a	)	
	)	
AMEREN MISSOURI – SIOUX ENERGY CENTER	)	
	)	

CONSENT AGREEMENT

The issuance of this Agreement No. APCP-2021-018 by the Missouri Department of Natural Resources (Department) is a formal administrative action taken by the State of Missouri after conference with Ameren Missouri (Ameren). The parties agree this Agreement is being issued to administer, implement, and enforce the purposes of the Missouri Air Conservation Law, Chapter 643, RSMo, and its implementing regulations. The parties agree that this Agreement is being issued as an administrative order under 6430.060(4), RSMo. Ameren further agrees that failure to comply with this Agreement is a violation of the Missouri Air Conservation Law under Section 643.151, RSMo.

BACKGROUND

In June 2010, the Environmental Protection Agency (EPA) promulgated the 1-hour Sulfur Dioxide (SO_2) primary National Ambient Air Quality Standard of 75 parts per billion (ppb)(2010 SO_2 NAAQS). Ameren operates the Sioux Energy Center (Sioux) within St. Charles County. EPA designated the portion of St. Charles County, where Sioux is located, as attainment/unclassifiable effective April 9, 2018. Subsequent State Implementation Plan (SIP) actions by the Department did not specify emission limits for Sioux as the area is not in a

nonattainment area for the 2010 SO_2 NAAQS. The SO_2 emission limits described below are voluntarily entered into by Ameren and are intended to augment the SIP as they provide enforceable emission limits that are lower than the existing Sioux limits in any state rule or other enforceable mechanism included in the SIP.

AGREEMENT

1. **SO_2 Emission Limits -** Ameren shall limit SO_2 emissions as specified in Table A. Limits in Table A apply only to coal fired steam electric generating units specified in Table B and do not include any other fuel combustion sources at the energy centers. Emergency equipment, combustion turbines, natural gas fired units, and auxiliary boilers are specifically excluded from the emission limit below, as are any other non-coal fired steam electric generating units.

Table A- Ameren Missouri SO_2 Emission Limits

Source	Source ID	Emission Limit per Source (pounds SO_2 per hour)	Averaging Time
Ameren Missouri – Sioux Energy Center	1830001	7,342	24-hour block average

Table B - Units Subject to Facility-Wide Emission Limits in Table A

Unit Name	Operating Permit Identifier	Emission Inventory Identifier
Sioux Energy Center		
Boiler 1	B-1	B-01
Boiler 2	B-2	B-02

2. **Reservation of Rights Regarding Adjustment of Table 1 Emission Limits -** The parties agree that nothing herein shall preclude the Department from taking regulatory action, including but not limited to a rulemaking, to seek additional emission reductions for the purposes of the 2010 SO_2 NAAQS. Ameren reserves the right to oppose, challenge, or contest such future regulatory action.

3. **Compliance and Enforcement Requirements**

A. Emission Unit Monitoring Requirements:

i. All coal fired steam electric generating units subject to the facility-wide emission limit in Table A shall operate and maintain an SO_2 Continuous Emissions Monitoring System (CEMS). Ameren has installed and certified SO_2 CEMS for the units in Table B according to the requirements of 40 CFR 75.20(c) (1) and 40 CFR 60 Appendix B. If Ameren continues to meet the ongoing quality assurance requirements of 40 CFR 75.21 and 40 CFR 75 Appendix B, these CEMS may be used to meet the monitoring requirements of this Agreement.

ii. Per the requirements of 40 CFR 75.10 (d), the CEMS will be in operation at all times that the affected unit combusts fuel, except as provided in 40 CFR 75.11(e) and during periods of calibration, quality assurance, or preventive maintenance, performed pursuant to 40 CFR 75.21 and 40 CFR 75 Appendix B, periods of repair, periods of backups of data from the data acquisition and handling system, or recertification performed pursuant to §75.20.

iii. The SO_2 data used in the Compliance Determination in Paragraph 3.B. of this Agreement and used to meet the Reporting Requirements of this Agreement shall not include substitute data values derived from the missing data procedures in 40 CFR Part 75 subpart D, nor shall the SO_2 data have been bias adjusted according to the procedures of part 75 of this chapter.

B. Compliance Determination:

i. Quality assured hourly SO_2 CEMS data will be used to determine compliance with the facility-wide emission limit in Table A. Ameren shall use the following procedures to calculate the 24-hour block average emission rate for Sioux:

a. For each calendar day 24-hour block and for each coal fired steam electric generating unit in Table B, include only hours that meet the primary equipment hourly operating requirements of 40 CFR 75.10 (d). Hours when the units are experiencing startup, shutdown, or malfunction conditions will be used for the calculation if they meet the primary equipment hourly operating requirements of 40 CFR 75.10 (d).

b. For each unit, for included hours, sum the value of the calendar day 24-hour block SO_2 emissions in pounds and divide by the number of hours included. Then sum this resulting value for the two coal fired steam electric generating units in Table 2.

ii. Compliance for the calendar day 24-hour block period is demonstrated if the sum calculated in paragraph 3.B.i.b. is less than or equal to the facility-wide limit in Table A.

C. Recordkeeping

1. Ameren shall maintain all hourly data and computations related to the calendar day 24-hour block SO_2 average for a period of at least 5 years. Ameren shall make this data available within 5 business days from a written or electronic request from the Department.

11. Ameren shall maintain a record of data, calculations, results, records, and reports from any SO_2 emissions performance test.

111. Ameren shall maintain a record of any applicable SO_2 monitoring data, SO_2 CEMS performance evaluations, calibration checks, monitoring system and device performance tests, and any adjustments and maintenance performed on these systems or devices.

D. Reporting

i. Ameren shall report on compliance with the facility-wide emission limit in Table A on the same schedule as the annual compliance certification required in accordance with the operating permits issued under 40 CFR Part 70.

ii. On a quarterly basis, Ameren shall make a summary report of excess emissions and monitoring system downtime for the facility limit listed in Table A in accordance with the requirements of 40 CFR 60.7(c) for the monitoring conducted in accordance with the requirements of this Agreement. In this summary report, Ameren shall identify all periods of excess emissions within thirty (30) days

following the end of the quarter. In all cases, the report must be a written report and include, at a minimum, the following:

a. Name and location of source;

b. Name and telephone number of person responsible for the source;

c. Identity and description of the equipment involved;

d. Time and duration of the period of SO_2 excess emissions;

e. Type of activity;

f. Estimate of the magnitude of the SO_2 excess emissions expressed in the units of the applicable emission control regulation and the operating data and calculations used in estimating the magnitude;

g. Measures taken to mitigate the extent and duration of the SO_2 excess emissions; and

h. Measures taken to remedy the situation which caused the SO_2 excess emissions and the measures taken or planned to prevent the recurrence of these situations.

E. Testing

i. Ameren shall use one or more of the following test methods contained in 40 CFR 60, Appendix A, published as of July 1, 2018.

a. Method 1: Sample and velocity transverses for stationary sources

b. Method 2: Determination of stack gas velocity and volumetric flow rate (Type S pitot tube)

c. Method 3: Gas analysis for the determination of dry molecular weight

d. Method 4: Determination of moisture content in stack gases

e. Method 6: Determination of Sulfur Dioxide Emissions from Stationary Sources

f. Method 6A: Determination of Sulfur Dioxide, Moisture, and Carbon Dioxide from Fossil Fuel Combustion Sources

g. Method 6B: Determination of Sulfur Dioxide and Carbon Dioxide Daily Average Emissions from Fossil Fuel Combustion Sources

h. Method 6C: Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrument Analyzer Procedure)

i. Method 8: Determination of sulfuric acid mist and sulfur dioxide emissions from stationary sources

ii. As a source using an SO_2 CEMS to demonstrate compliance with the limit in Table A, Ameren shall follow the requirements in 40 CFR 75, promulgated as of June 30, 2018, and/or 40 CFR 60, appendices B and F, promulgated as of July 1, 2018.

OTHER PROVISIONS

1. By signing this Agreement, all signatories assert that they have read and understand the terms of this Agreement, that they had the opportunity to consult with legal counsel, and that they have the authority to sign this Agreement on behalf of their respective parties.

2. The parties agree that this Agreement will be submitted to the EPA as part of a SIP revision, as required in 42 U.S.C. § 7401, et seq., and will become federally enforceable upon EPA approval.

3. This Agreement shall be construed and enforced according to the laws of the State of Missouri, and the terms stated herein shall constitute the entire and exclusive agreement of the parties hereto with respect to the matters addressed herein, notwithstanding any pending rulemakings or legislation. The parties agree that the enforceability of this Agreement shall be subject to the procedures for enforcement of orders granted to the Department. The terms of this Agreement supersede all previous memoranda of understanding, notes, conversations, and agreement.

4. This Agreement shall not be construed as a waiver or a modification of any requirements of the Missouri Air Conservation Law and regulations or any other source of law, and that this Agreement does not resolve any claims based on any failure by Ameren to meet the requirements of this Agreement, or claims for past, present, or future violations of any statutes or regulations.

5. Nothing in this Agreement is intended to constitute an admission or statement by Ameren that the Sioux Energy Center or any other Ameren generating unit has adversely impacted or has the potential to adversely impact any nonattainment area under the 2010 SO_2 NAAQS.

6. The provisions of this Agreement shall apply to and be binding upon the parties executing this Agreement, their agents, subsidiaries, successors, assigns, affiliates, and lessees, including the officers, agents, servants, corporations and any persons acting under, though, or for the parties agreeing hereto. Any changes in ownership or corporate status, including but not limited to any transfer of assets or real or personal property, shall not affect the responsibilities of Ameren under this Agreement. If Ameren sells or otherwise transfers its business or the real estate that is the situs of the Sioux Energy Center then Ameren shall cause as a condition of such

sale or transfer, that the buyer will assume the obligations of Ameren under this Agreement in writing. In such event, Ameren shall provide thirty (30) days prior written notice of such assumption to the Department.

7. This Agreement may only be modified upon the mutual written agreement of Ameren and the Department. This Agreement may not be modified orally.

8. If any provision of this Agreement is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

9. Nothing in this Agreement excuses Ameren for any future non-compliance with the laws of the State of Missouri, and the Department expressly reserves the right to address future noncompliance in any manner authorized by law.

10. This Consent Agreement will become final, effective, and fully enforceable by the Department once it is executed by each of the parties. The Department shall send a fully executed copy of this Agreement to Ameren.

TERMINATION

11. This Agreement shall be terminated upon mutual written agreement of Ameren and the Department.

CORRESPONDENCE AND DOCUMENTATION

12. Correspondence or documentation with regard to this Agreement shall be directed to the following persons, subject to change upon written notification from either party:

For the Department:

Compliance and Enforcement Section Chief
Air Pollution Control Program
P.O. Box 176
Jefferson, City, Missouri 65102-0176

Or by email to: AirComplianceReporting@dnr.mo.gov

For Ameren:

Manager of Environmental Services
Ameren Missouri
1901 Chouteau Ave.
St. Louis, Missouri 63166

RIGHT OF APPEAL

Notwithstanding the rights reserved in paragraph 2, by signing this Agreement, Ameren waives any right to appeal, seek judicial review, or otherwise challenge this Agreement pursuant to Sections 643.130, 643.085, or 621.250 RSMo, Chapters 536, 643, or 640 RSMo, 10 CSR 10-1.030, or any other source of law.

AGREED TO AND ORDERED

MISSOURI DEPARTMENT OF NATURAL RESOURCES

Original signed by
Stephen M. Hall

Steven M. Hall, Director
Air Pollution Control Program
Missouri Department of
Natural Resources

Date: December 14, 2021

AMEREN MISSOURI

Original signed by
Mark C. Birk

Mark C. Birk
Senior Vice President – Customer and
Power Operations
Ameren Missouri

Date: 12/13/21

Order of Rulemaking

The Missouri Air Conservation Commission **ADOPTS** the following action on this 31st day of March, 2022:

Missouri State Implementation Plan Revision – Ameren Sioux Sulfur Dioxide Consent Agreement

_____, Chairman

_____, Vice Chairman

_____, Member

_____, Member

_____, Member

_____, Member

_____, Member

Order of Rulemaking

The Missouri Air Conservation Commission **ADOPTS** the following action on this 31st day of March, 2022:

Missouri State Implementation Plan Revision – Ameren Sioux Sulfur Dioxide Consent Agreement

_____, Chairman

_____, Vice Chairman

_____, Member

_____, Member

_____, Member

_____, Member

_____, Member

Order of Rulemaking

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Missouri State Implementation Plan Revision – Ameren Sioux Sulfur Dioxide Consent Agreement

_____, Chairman

_____, Vice Chairman

_____, Member

_____, Member

_____, Member

_____, Member

_____, Member

Morgan, Cheri

From: Missouri DNR <modnr@modnr.dmarc.public.govdelivery.com>
Sent: Tuesday, December 21, 2021 9:52 AM
To: Bybee, Darcy; Gilmore, David; Fredrick, Miranda; Beydler, Van; Bloomer, Susan; Quinn, Brian; Hall, Stephen; Stevens, Jeffrey; Downs, Jerry; Arwe, Andrea; Payne, Stan; Morgan, Cheri; Holden, Tisha; Patterson, Connie; Maliro, Patricia; Moore, Kyra; Kremer, Karen; Rice, Heidi
Subject: Courtesy Copy: Missouri Air Conservation Commission Public Hearing - January 27, 2022

This is a courtesy copy of an email bulletin sent by Cheri Morgan.

This bulletin was sent to the following groups of people:

Subscribers of Air Public Notices (1688 recipients)

MISSOURI DEPARTMENT OF NATURAL RESOURCES

Having trouble viewing this email? View it as a Web page.

SHARE

Missouri Air Conservation Commission Will Hold Public Hearing

The Missouri Air Conservation Commission will hold a public hearing on Thursday, January 27, 2022 beginning at 9 a.m. Elm Street Conference Center, 1730 East Elm Street, Lower Level, Bennett Springs Conference Room, Jefferson City, Missouri, and online with live video conferencing during the Missouri Air Conservation Commission meeting. Information for online participation is available at https://dnr.mo.gov/commissions-boards-councils/air-conservation-commission. The commission will hear testimony related to the following proposed actions:

- 10 CSR 10-6.062 (amendment) Construction Permits by Rule

  The purpose of this amendment is to amend paragraph (3)(B)2. and subparagraph (3)(B)2.A. to remove a provision allowing the burning of illegal and waste pharmaceutical drugs in crematories and animal incinerators, and change a reference made to another state rule. EPA has finalized new management standards for the disposal of pharmaceuticals.

- 10 CSR 10-5.490 (amendment) Municipal Solid Waste Landfills

The purpose of this proposed amendment is to reference the new federal emission thresholds and compliance schedules (40 CFR 62, Subpart OOO) for municipal solid waste landfills in the St. Louis area that accepted waste after November 8, 1987, and commenced construction, reconstruction, or modification before July 17, 2014. This rule implements a smaller landfill size limit with a lower emission cutoff limit in the St. Louis area for gas collection and control systems.

- 10 CSR 10-6.310 (amendment) Restriction of Emissions From Municipal Solid Waste Landfills

  The purpose of this proposed amendment is to reference the new federal emission thresholds and compliance schedules (40 CFR 62, Subpart OOO) for municipal solid waste landfills that accepted waste after November 8, 1987, and commenced construction, reconstruction, or modification before July 17, 2014. This action is not a revision to the Missouri State Implementation Plan.

- Missouri State Plan Revision – Section 111(d) State Plan for Municipal Solid Waste Landfills

  The purpose of this state plan revision is to address the non-regulatory elements of Clean Air Act Section 111(d) for existing municipal solid waste landfills in Missouri. This plan includes an inventory of affected sources and explains how the state rules fulfill the regulatory requirements needed for EPA to approve the plan. This action is not a revision to the Missouri State Implementation Plan.

- Missouri State Implementation Plan Revision – Maintenance Plan for the St. Louis Nonattainment Area for the 2015 Ozone Standard

  This plan addresses the Clean Air Act requirements for maintenance plans for the Missouri portion of the St. Louis nonattainment area under the 2015 ozone standard. Monitoring data for the years 2019-2021 demonstrates the area has come into compliance with the standard of 70 parts per billion. EPA's approval of this maintenance plan must occur before EPA can redesignate the area to attainment. The department intends to submit a formal redesignation request for the area concurrently with this maintenance plan.

- Redesignation Request for the St. Louis Nonattainment Area for the 2015 Ozone Standard

  This action requests that EPA redesignate the Missouri portion of the St Louis nonattainment area to attainment under the 2015 ozone standard. This request is in accordance with Section 107(d)(3)(E) of the Clean Air Act and demonstrates the area has met the required statutory elements to redesignate a nonattainment area to attainment. Redesignation to attainment will occur when EPA promulgates final approval of this request. This redesignation request is not a revision to the Missouri State Implementation Plan.

- Missouri State Implementation Plan Revision – Ameren Sioux Sulfur Dioxide Consent Agreement

  The purpose of this action is to incorporate a voluntary consent agreement between the department and the Ameren Sioux facility into Missouri's state implementation plan (SIP). Through the consent agreement, the Ameren Sioux facility is agreeing to enforceable SO_2 requirements that are lower than their current permitted levels. This will allow the department to take credit in the SIP for reductions in SO_2 emissions that Ameren has achieved at the Sioux facility.

If the commission adopts the actions, it will be the department's intention to submit the actions to the U.S. Environmental Protection Agency to be included in Missouri's State Implementation Plan, unless otherwise noted above.

Documents for the above items will be available for review at the Missouri Department of Natural Resources, Air Pollution Control Program, 1659 Elm Street, Jefferson City, (573) 751-4817 and in the Public Notices section of the program web site https://dnr.mo.gov/air/what-were-doing/public-notices-comments. This information will be available at least 30 days prior to the public hearing date.

The department will accept comments for the record until 5 p.m. on February 3, 2022. Please send written comments to Chief, Air Quality Planning Section, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176. Email comments may be submitted via the program web site noted above. All comments and public hearing testimony will be equally considered.

Citizens wishing to speak at the public hearing should notify the secretary to the Missouri Air Conservation Commission, Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102-0176, or telephone (573) 751-7840. The department requests persons intending to give verbal presentations also provide a written copy of their testimony to the commission secretary at the time of the public hearing.

People with disabilities requiring special services or accommodations to attend the meeting can make arrangements by calling the program directly at (573) 751-4817, the Division of Environmental Quality's toll free number at (800) 361-4827, or by writing two weeks in advance of the meeting to: Missouri Department of Natural Resources, Air Conservation Commission Secretary, P.O. Box 176, Jefferson City, MO 65102. Hearing impaired people may contact the program through Relay Missouri, (800) 735-2966.\TTY.

Calendar

DECEMBER

21

Tuesday

Dec. 21 - Feb. 3 — Statewide

Proposed Missouri State Implementation Plan Revision: Ameren Sioux Sulfur Dioxide Consent Agreement Public Comment Period, Dec. 21, 2021 to Feb. 3, 2022 (/calendar/event/153476)

The Missouri Department of Natural Resources is proposing revisions to the Missouri State Implementation Plan (SIP) to include a voluntary consent agreement between the department and Ameren's…

Area of Focus: Air Event Type: Public Notice/ Public Comment
Organization: Air Pollution Control Program

The Missouri Department of Natural Resources is proposing revisions to the Missouri State Implementation Plan (SIP) to include a voluntary consent agreement between the department and Ameren's Sioux Energy Center, located in St. Charles County. The department invites the public to review and offer written comments on the proposed consent agreement until **Feb. 3, 2022**. **All comments must be received or postmarked by 5 p.m.** The public can review the proposed revisions below.

Written comments may be submitted by mail to Missouri Department of Natural Resources, Air Pollution Control Program, ATTN: Air Quality Planning Section Chief, PO Box 176, Jefferson City, MO 65102-0176 or by email to **apcpsip@dnr.mo.gov (mailto:apcpsip@dnr.mo.gov)**. The department will hold a public hearing about the proposed revision during the Missouri Air Conservation Commission meeting on Jan. 27, 2022. Please follow the hearing link for more information.

Through the consent agreement, the Ameren Sioux facility is agreeing to enforceable sulfur dioxide (SO_2) requirements that are lower than their current permitted levels. This will allow the department to take credit in the SIP for reductions in SO_2 emissions that Ameren achieved at the Sioux facility.

Event Documents

- **Proposed Missouri State Implementation Plan Revision: Ameren Sioux Sulfur Dioxide Consent Agreement, Dec. 14, 2021 (/document/proposed-missouri-state-implementation-plan-revision-ameren-sioux-sulfur-dioxide-consent-agreement-dec-14-2021)**

Location Information

Statewide, MO
Statewide

Contact Information

Air Quality Planning Section Chief

573-751-7840 (tel:5737517840)

apcpsip@dnr.mo.gov (mailto:apcpsip@dnr.mo.gov)

GET LOCAL INFORMATION

Beach Status - State Parks(/beaches)

Boil Water Orders(/water/alerts-hazards/boil-orders/current-map)

Current Air Quality(/air/hows-air/current-air-quality)

Hazardous Sites and Regulated Facilities (/waste-recycling/long-term-stewardship-lts/environmental-site-tracking-research-tool-e-start)

Solid Waste Processing Facilities and Landfills (https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=f261c6069e324f48a8cbc6ce74343f41)

State Park and Historic Sites Status (https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=0cc1b6513d6e407694aede7b7bdbde93)

GET INFORMED

Calendar/ Public Notices(/calendar)

Document Search(/document-search)

Data and e-Services(/data-e-services)

Get Email Updates(https://public.govdelivery.com/accounts/MODNR/subscriber/new)

Open Records/ Sunshine Law Requests(/open-records-sunshine-law-requests)

Monitoring(/monitoring)

TAKE ACTION

Comment on Proposed Rules(https://apps5.mo.gov/proposed-rules/welcome.action#OPEN)

Get Involved - Agency(/get-involved)

Reduce, Reuse and Recycle(/waste-recycling/reduce-reuse-recycle)

Report an Environmental Concern/ Submit a Question(/reporting/environmental-concern)

Submit Public Comments(/public-notices-comments)

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telephone?

Okay. Hearing none, this public -- this item on the public hearing, we're moving to the next. Thank you, Aaron.

The next public hearing item, Missouri State Implementation Plan Revision, Ameren Sioux Sulfur Dioxide Consent Agreement by Valion Joyce.

Valion.

MR. JOYCE: Mr. Chairman, members of the commission. My name is Valion Joyce. I'm employed in the State Implementation Plan unit program -- plan unit with the Missouri Department of Natural Resources Air Pollution Control Program. I work at 1659 East Elm Street, Jefferson City, Missouri. I am here today to present testimony on the proposed Missouri State Implementation Plan or SIP revision titled Ameren Sioux Sulfur Dioxide Consent Agreement. The executive summary for this plan starts on page 206 of the briefing document.

The purpose of this action is to incorporate a voluntary consent agreement between the department and the Ameren Sioux facility into Missouri's SIP. Through the consent agreement, the Ameren Sioux facility is agreeing to enforceable sulfur dioxide, or SO2, requirements that are lower

than the current permit levels. This will allow the department to take credit in the SIP for reductions in SO2 emissions that Ameren has achieved at the Sioux facility.

If the commission adopts this plan, the department intends to submit it to the U.S. Environmental Protection Agency for inclusion in the Missouri State Implementation Plan.

Chairman, Commissioners, that concludes my testimony.

MR. ROCHA: Any commissioners have any questions or comments for Valion?

Secretary Gilmore, is there anyone signing up to speak in the room?

MR. GILMORE: None for the room, sir.

MR. ROCHA: Thank you.

Secretary Gilmore, is there anyone on Webex indicating wishing to speak.

MR. GILMORE: Nothing on Webex, but I did have an email yesterday that Mike Hutchinson wishes to speak today during this hearing. Let me see if I can locate him on here.

MR. HUTCHINSON: I'm here, if you can hear me.

MR. GILMORE: Excellent. Good deal. I

RECOMMENDATION FOR ADOPTION

MISSOURI STATE IMPLEMENTATION PLAN REVISION – AMEREN SIOUX SULFUR DIOXIDE CONSENT AGREEMENT

On January 27, 2022, the Missouri Air Conservation Commission held a public hearing for the Missouri State Implementation Plan (SIP) revision titled – *Ameren Sioux Sulfur Dioxide Consent Agreement*.

The public comment period for the proposed plan opened on December 21, 2021, and closed on February 3, 2022. The summary of comments received and the air program's corresponding responses is included on the following page(s). The air program did not make any revisions to the proposed plan as a result of comments received.

The air program has not reprinted the proposed plan in the briefing document due to its volume. However, the Executive Summary is included for reference. The entire plan is available for review at the Missouri Department of Natural Resources' Air Pollution Control Program, 1659 East Elm Street, Jefferson City, Missouri, 65101, (573)751-4817. It is also available online at https://dnr.mo.gov/document-search/missouri-state-implementation-plan-revision-ameren-sioux-sulfur-dioxide-consent-agreement-march-31-2022.

The department recommends the commission adopt the plan as proposed. If the commission adopts this plan, the department intends to submit it to the U.S. Environmental Protection Agency for inclusion in the Missouri State Implementation Plan.

Executive Summary

The purpose of this State Implementation Plan (SIP) revision is to incorporate Consent Agreement No. APCP-2021-018 into Missouri's SIP. This Consent Agreement is between the Missouri Department of Natural Resources' Air Pollution Control Program (Air Program) and the Ameren Missouri (Ameren) – Sioux Energy Center (Sioux). The Consent Agreement establishes an enforceable mechanism for new sulfur dioxide (SO_2) emission limits at Sioux. This will allow the Air Program to rely on these new lower limits in future SIP actions and other technical demonstrations required under the Clean Air Act (CAA).

Ameren entered into this agreement voluntarily as a proactive measure to help strengthen Missouri's SIP, which helps to ensure ongoing air quality in the St. Louis region. In 2010, Ameren installed state-of-the-art SO_2 emission control technology at Sioux as part of their overall environmental strategy. Ameren's willingness to enter into this Consent Agreement as a SIP strengthening measure allows the Air Program to take credit in the SIP for the air quality improvement achieved by Ameren through their SO_2 control strategy at Sioux.

COMMENTS AND RESPONSES ON

MISSOURI STATE IMPLEMENTATION PLAN REVISION –
AMEREN SIOUX SULFUR DIOXIDE CONSENT AGREEMENT

The public comment period for the Ameren Sioux consent agreement opened on December 27, 2021 and closed on February 3, 2022. No revisions to the proposed plan were made as a result of comments.

The following is a summary of comments received and the Missouri Department of Natural Resources' Air Pollution Control Program's (air program's) corresponding responses.

SUMMARY OF COMMENTS: During the public comment period for the proposed plan, the air program received one comment from Michael Hutcheson, representing Ameren Missouri (Ameren).

COMMENT #1: Ameren commented in support of the proposed SIP revision.

RESPONSE: The air program appreciates this supportive comment. No changes to the proposed plan were made in response to this comment.

TECHNICAL SUPPORT DOCUMENT

Illinois Sulfur Dioxide (SO_2) Attainment Demonstration:

Alton Township (Madison County)

Revised

AQPSTR 18-02

Illinois Environmental Protection Agency
Bureau of Air
1021 North Grand Avenue, East
Springfield, Illinois 62794-9276

September 7, 2018

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Executive Summary

On July 12, 2016, the U.S. Environmental Protection Agency (USEPA) published in the *Federal Register* final air quality designations for the 2010 sulfur dioxide (SO_2) primary National Ambient Air Quality Standard (NAAQS) under "Round 2" of the NAAQS implementation process. Within Illinois, all of Williamson County and a sub-county portion of Madison County were designated as nonattainment. For Madison County, the nonattainment designation consists of that area in Alton Township east of the Corporal Belchik Memorial Expressway, south of East Broadway street, south of Route 3, and north of Route 143. The nonattainment designation and areal extent of the nonattainment area represent USEPA's concurrence with Illinois EPA's recommendation submitted September 18, 2015. That recommendation was based upon various factors, but principally the results of a modeling analysis of SO_2 emission sources located in and around Wood River, Illinois. Modeled violations were primarily attributable to emissions associated with the Alton Steel, Inc. (Alton Steel) facility in Alton, Illinois.

The procedures, results, and summary discussion presented in this document are provided to USEPA in partial fulfillment of Illinois EPA's obligations under the Clean Air Act (CAA). In adherence to statutory requirements, the Illinois EPA has developed and implemented a modeling analysis for Alton Township that demonstrates attainment with the 1-hour SO_2 NAAQS. Through iterative simulations consistent with federal modeling guidance, the Illinois EPA has determined an ambient impact reduction strategy necessary for achieving an acceptable modeled design value (less than or equal to 196.32 micrograms per cubic meter). Permit conditions imposed with the construction of a new Ladle Metallurgy Facility (LMF) stack at Alton Steel (Construction Permit #18020009) have been found sufficient to eliminate modeled violations within the nonattainment area previously attributable to this Illinois emission source. A full demonstration of attainment at allowable emission rates, however, would necessitate reduced allowable emission rates for coal-fired boilers at the Ameren Missouri – Sioux Energy Center (Ameren – Sioux) near Portage des Sioux, Missouri. The assistance of staff from USEPA Region 5, USEPA Region 7, and Missouri DNR was requested to secure these lower emission limits, since it is not possible for the Illinois EPA to independently impose lower limits on Missouri sources.

1.0 Introduction

USEPA's implementation of the primary SO_2 NAAQS did not assign designations for the entire country within the timeframe specified by the CAA. The SO_2 NAAQS was revised effective August 23, 2010, (*Federal Register*, Vol. 75, No. 119, pp.35520-35603) to 75 parts per billion (ppb) as a 1-hour average, and USEPA was statutorily required to promulgate designations within two years of that date. In correspondence dated March 20, 2015, Janet G. McCabe (Acting Assistant USEPA Administrator) provided Illinois EPA Director Lisa Bonnett with an update on the status of the implementation process, giving mention of the following: "On March 2, 2015, the U.S. District Court for the Northern District of California accepted as an enforceable order an agreement between the EPA and Sierra Club and Natural Resources Defense Council to resolve litigation concerning the deadline for completing the designations." The correspondence further states that, under the schedule specified in the consent decree, a first round of designations ("Round 2") would "designate two groups of areas: 1) areas that have newly monitored violations of the 2010 SO_2 standard, and 2) areas that contain any stationary source that according to the EPA's Air Markets Database either emitted more than 16,000 tons of SO_2 in 2012 or emitted more than 2,600 tons of SO_2 and had an emission rate of at least 0.45 lbs SO_2/mmbtu in 2012 and that has not been announced (as of March 2, 2015) for retirement." Illinois had five stationary sources that met one or both criteria under the second grouping. In response to USEPA's identification of these sources as affected areas, Illinois EPA conducted air quality analyses evaluating the ambient impacts of these identified sources and associated background sources. These modeling results were the primary source of information supporting updated area recommendations for USEPA's consideration (submittal made September 18, 2015). Of the five sources identified, only one modeled a violation of the standard, and as such the Illinois EPA submittal included a nonattainment recommendation for a portion of Alton Township in Madison County. Specifically, it included that area within Alton Township east of the Corporal Belchik Memorial Expressway, south of East Broadway street, South of Route 3, and north of Route 143 (see Figure 1). USEPA finalized the designations for the areas surrounding the five facilities on July 12, 2016 (*Federal Register*, Vol. 81, No. 133, pp. 45039-45055), retaining most of Illinois EPA's recommendations, including the area in Madison County recommended for nonattainment.

In soliciting "updated recommendations and supporting information"[1] for Round 2 of the implementation process, USEPA provided updated guidance[2] for consideration by regulatory

[1] March 20, 2015, Letter from Janet G. McCabe, Acting Assistant Administrator (USEPA) to Lisa Bonnett, Director, Illinois Environmental Protection Agency.

[2] March 20, 2015, Memorandum from Stephen D. Page, Director, Office of Air Quality Planning and Standards (USEPA) to Regional Air Division Directors, Regions 1-10, *Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard*.

Figure 1
Nonattainment Area Boundary (Alton Township)

authorities that identified "factors for determining the boundaries for SO_2 areas designated nonattainment, attainment and unclassifiable." USEPA also issued a draft modeling technical assistance document (TAD)[3] for characterizing air quality based on actual emissions, and which was to be specifically used "for comparison to the SO_2 NAAQS for the purposes of designations." That modeling guidance was not intended for attainment planning purposes, which is the focus of this document.

In "Round 2" modeling for the Wood River Power Station (Madison County), the Alton Steel,

[3] *SO_2 NAAQS Designations Modeling Technical Assistance document* (draft), December 2013, USEPA (OAR/OAQPS/AQAD), Research Triangle Park, NC.

Inc. steel mill in Alton, Illinois, was a "nearby" source included in the modeling analysis, because of non-trivial SO_2 emissions that had the potential for creating significant SO_2 concentration gradients within the modeling domain. This was also true of the other "nearby" sources (WRB Refining Inc.; Christ Brothers Products LLC; National Maintenance and Repair; Ameren Missouri - Sioux Energy Center). The highest modeled NAAQS violations under "Round 2" were almost entirely due to Alton Steel emissions and typically occurred along or near Alton Steel's north fenceline. The Alton Steel facility consists of a melt shop and a rolling mill in which steel scrap is melted (electric arc furnace), refined/alloyed (ladle metallurgical furnace), and then cast/formed into blooms and slabs. Unlike the "Round 2" modeling, the Alton Township attainment demonstration does not include the Wood River Power Station among the sources modeled. In November 2015, the facility owner – Dynegy, Inc. – publicly announced that the power plant would be closing, pending approval of the electrical transmission system operator (Midcontinent Independent System Operator). The facility was retired in June 2016.

2.0 Modeling Methodology

2.1 Modeling Guidance and General Considerations

Attainment demonstration modeling performed by the Illinois EPA for the Alton Township NAA closely conforms with regulatory procedures described in *The Guideline on Air Quality Models*[4] and with recommended practices identified in the USEPA *Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions.*[5] The Illinois EPA modeling methodology also reflects federal guidance memoranda including *Applicability of Appendix W Modeling Guidance for the 1-hour SO_2 National Ambient Air Quality Standard*[6] and *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard.*[7] Furthermore, model runstream file construction and model execution followed USEPA's *AERMOD Implementation Guide.*[8]

The AERMOD (AMS/EPA Regulatory Model) modeling system (which includes the AERMOD dispersion model, the AERMAP terrain preprocessor, and the AERMINUTE and AERMET meteorological preprocessors) was used to simulate ambient impacts within the Alton Township nonattainment area. AERMOD is the preferred Gaussian plume dispersion model for steady state, near-field regulatory applications. As noted in both 40 CFR Part 51, Appendix W and in the AERMOD model formulation document, "it is applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area and volume

[4] 40 CFR Part 51, Appendix W.
[5] *Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions*, April 23, 2014, U.S. Environmental Protection Agency, Research Triangle Park, NC.
[6] *Applicability of Appendix W Modeling Guidance for the 1-hour SO_2 National Ambient Air Quality Standard*, Tyler Fox memorandum dated August 23, 2010, U.S. Environmental Protection Agency, Research Triangle Park, NC.
[7] *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard*, Tyler Fox memorandum dated March 1, 2011, U.S. Environmental Protection Agency, Research Triangle Park, NC.
[8] *AERMOD Implementation Guide*. (2016). U.S. Environmental Protection Agency, Research Triangle Park, NC.

sources)."[9] AERMOD is based upon planetary boundary layer principals for characterizing atmospheric stability, and concentration distributions are assumed to be Gaussian, except for the vertical distribution in the convective boundary layer which is characterized with a "bi-gaussian probability density function."[10] The Illinois EPA has relied upon AERMOD Version 18081 and the companion AERMOD *User Guide* documentation[11,12] in developing this attainment demonstration. The most recent five years (2012-2016) of meteorological data determined to be representative of the NAA's airshed were used in combination with surface characteristics data obtained from AERSURFACE (version 13016) for simulating the area's planetary boundary layer turbulence structure.

Data for detailed site characterization (stack locations, fenceline locations, building dimensions, etc.) of the Alton Steel facility and "nearby" sources were gathered and/or generated to support development of specific AERMOD inputs. The Illinois EPA used USEPA's Building Profile Input Program with PRIME algorithm (BPIPPRM, dated 04274) to generate direction-specific building inputs for modeling building wake effects within AERMOD. Building-induced plume downwash was addressed for all stacks and flares not constructed to good engineering practice height (GEP).

2.2 Modeling Domain, Receptor Network, and Emission Inventory

This attainment demonstration uses a modeling domain that reflects the geographic extent of emission sources included in the "Round 2" modeling for the Wood River Power Plant. The receptor network, on the other hand, is of more limited extent. It encompasses the nonattainment area and consists of discrete fenceline receptors spaced at approximately 50-meter intervals and a gridded receptor array with 100-meter interval spacings. The receptor density is consistent with standard modeling guidance for adequately capturing and resolving SO_2 concentration maxima.

The Illinois EPA has relied upon information in its Integrated Comprehensive Environmental Management System (ICEMAN) statewide database, in addition to facility-specific information obtained in conjunction with the "Round 2" modeling, to simulate ambient impacts within the nonattainment area from SO_2-emitting sources within the modeling domain. Figure 2 depicts the location of the SO_2-emitting sources modeled, while Appendix A provides a comprehensive list of modeled emission sources and emission release data.

[9] Cimorelli, A.J., S.G. Perry, A. Venkatram, J.C. Weil, R.J. Paine, R.B. Wilson, R.F. Lee, W.D. Peters, R.W. Brode, and J.O. Paumier. (2004). *AERMOD: Description of Model Formulation*, EPA-454/R-03-004. U.S. Environmental Protection Agency, Research Triangle Park, NC.
[10] Ibid.
[11] USEPA. (2004). *User's Guide for the AMS/EPA Regulatory Model – AERMOD*. EPA-454/B-03-001. U.S. Environmental Protection Agency, Research Triangle Park, NC.
[12] USEPA. (2014). *Addendum – User's Guide for the AMS/EPA Regulatory Model – AERMOD*. EPA-454/B-03-001 (September 2004). U.S. Environmental Protection Agency, Research Triangle Park, NC.

Figure 2
Alton Township Nonattainment Area Modeling – Emission Sources

Most sources modeled represent point sources (stacks and flares), and emissions release configurations are typically vertical without raincaps. Notable exceptions are the downward angling vents from the LMF baghouse at Alton Steel. The baghouse emissions were represented as horizontal releases. For each vent, the modeled exit velocity was initially adjusted in the manner recommended in the *AERMOD Implementation Guide*.[13] This document specifically indicates that the "user should input the actual stack diameter and exit temperature but set the exit velocity to a nominally low value, such as 0.001 m/s." The current version of AERMOD provides the regulatory option of modeling a horizontal stack as a "POINTHOR" source type without the need for adjusting the exit velocity. This latter approach was ultimately implemented in this modeling demonstration. Flares were modeled with adjusted release parameters, consistent with current modeling guidance. The adjusted parameters include fixed values for temperature (1273 degrees Kelvin) and exit velocity (20 meters/second) and

[13] Op.cit., p. 24.

modified values for release height and diameter. The *AERSCREEN User's Guide*[14] provides the equation for calculating the effective flare height:

$$H_{sl} = H_s + 4.56 \times 10^{-3} (H_r/4.1868)^{0.478}$$

where,

H_{sl} = effective flare height (meters)
H_s = stack height above ground (meters)
H_r = total heat release rate (Joules/second)

The screening modeling documentation also provides the equation for calculating the effective diameter for the flare:

$$D = 9.88 \times 10^{-4} \times [HR \times (1\text{-}HL)]^{0.5}$$

where,

D = effective stack diameter (meters)
HR = heat release rate (calories/second)
HL = heat loss fraction [used default value of 0.55]

2.3 Terrain Processing

Procedures for selecting and processing terrain data are provided by the *User's Guide for the AERMOD Terrain Preprocessor* (AERMAP),[15] and the March 2011 *AERMAP User's Guide Addendum* (version 11103).[16]

Selection of terrain data corresponds to the geographic area represented by the Alton Township NAA, as well as the locations of facilities represented as "nearby" sources. U.S. Geological Survey (USGS) National Elevation Dataset (NED) data were obtained in TIFF format (which is compatible for use with AERMAP), and used for generating the necessary terrain inputs. The NED TIFF files have a resolution of one arc second (30 meters) and the data is stored in a geographic (latitude/longitude) coordinate system based on the North American Datum of 1983 (NAD83). Conversions from latitude/longitude to Universal Transverse Mercator (UTM) coordinates take place within AERMAP using the UTMGEO program. NADCON conversion software (version 2.1) is incorporated to calculate datum shifts, where necessary. AERMAP (version 11103) was run within the BEEST for Windows software. Elevations from the NED data were determined for all sources and structures, and both elevations and representative hill heights were determined for receptors.

[14] *AERSCREEN User's Guide*. EPA-454/B-16-004. December 2016. U.S. Environmental Protection Agency, Research Triangle Park, NC.
[15] *User's Guide for the AERMOD Terrain Preprocessor (AERMAP)*. EPA-454/B-03-003, October 2004. U.S. Environmental Protection Agency, Research Triangle Park, NC.
[16] *Addendum – User's Guide for the AERMOD Terrain Preprocessor (AERMAP)*. EPA-454/B-03-003 (October 2004). U.S. Environmental Protection Agency, Research Triangle Park, NC.

2.4 Building-Induced Downwash

A detailed site characterization of the Alton Steel, Inc. facility and "nearby" sources provided dimensional and locational data for structures and stacks necessary for addressing building-induced plume downwash. Stacks constructed to less than good engineering practice height and within the "zone of influence" of a nearby structure have plumes that are potentially subject to downwash. The Illinois EPA used USEPA's Building Profile Input Program with PRIME algorithm (BPIPPRM, dated 04274) to generate direction-specific building parameters for modeling building wake effects. The location and height of each stack and flare to be evaluated, and the locations and heights of nearby structures, were processed in BPIPPRM to produce the building parameters required by AERMOD.

2.5 Meteorological Input Preparation

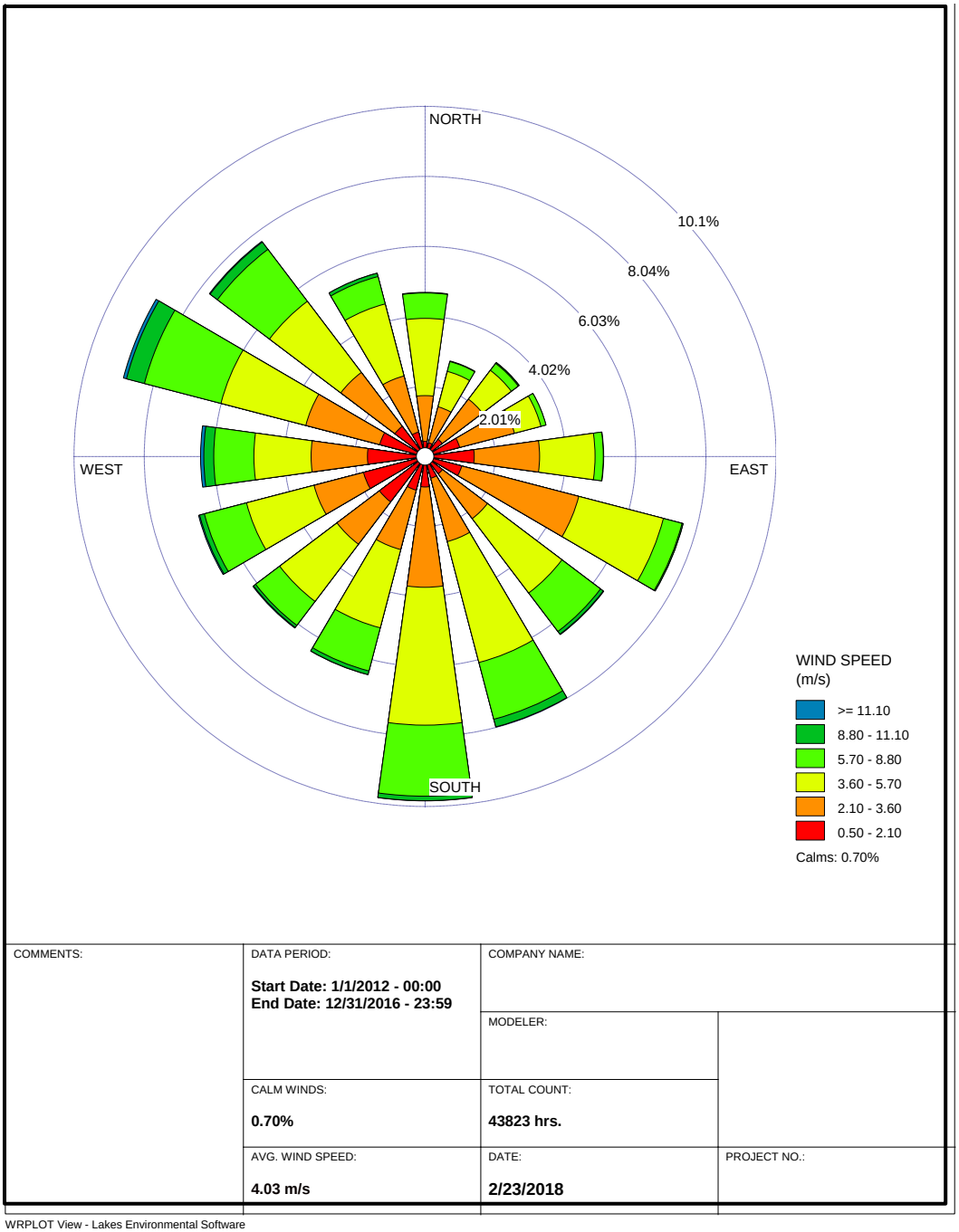
2.5.1 Meteorological Data Selection

Procedures for selecting and developing meteorological data have been provided in the draft document *Regional Meteorological Data Processing Protocol, EPA Region 5 and States*.[17] Within this document, there is content pertaining to selection criteria for surface meteorological data that addresses the representativeness of the meteorological data collection site to the emission source/receptor impact area. There are two specific criteria to be considered: 1) the suitability of meteorological data for the study area, and 2) the actual similarity of surface conditions and surroundings at the emission source/receptor impact area compared to the location of the meteorological instrumentation tower. The selection of a representative meteorological station for the Alton Township nonattainment area was based on proximity, similarity of terrain/surface roughness, and climatological consistency. Consistent with the meteorological data selection for the "Round 2" Wood River Study Area, this modeling analysis used 2012-2016 National Weather Service (NWS) surface meteorology from St. Louis, Missouri (WBAN No. 13994, 28 kilometers to the southwest), and coincident upper air observations from Lincoln, Illinois (WBAN No. 4833, 157 km to the northeast), as best representative of meteorological conditions within the modeling domain.

The five-year (2012-2016) surface wind rose for St. Louis, Missouri, is depicted in Figure 3. The frequency and magnitude of wind speed and direction are defined in terms of where the wind is blowing from, parsed out in sixteen 22.5-degree wind sectors. The predominant wind direction during the five-year period is from the south, occurring approximately 9.8% of the time. The highest percentage wind speed range, occurring 34.5% of the time, was in the 3.6 – 5.7 m/s range.

[17] Draft – *Regional Meteorological Data Processing Protocol. EPA Region 5 and States* (August 2014).

Figure 3
St. Louis, Missouri, Cumulative Annual Wind Rose
2012-2016



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	Start Date: 1/1/2012 - 00:00 **End Date: 12/31/2016 - 23:59**	MODELER:	
	CALM WINDS:	TOTAL COUNT:	
	0.70%	**43823 hrs.**	
	AVG. WIND SPEED:	DATE:	PROJECT NO.:
	4.03 m/s	**2/23/2018**	

WRPLOT View - Lakes Environmental Software

2.5.2 Meteorological Data Preprocessing

Procedures for processing meteorological data are provided in the *2004 User's Guide for the AERMOD Meteorological Preprocessor* (AERMET)[18] and in the 2014 AERMET User's Guide Addendum.[19] AERMET (version 16216) processes raw meteorological data to produce higher order data that can be read by the AERMOD model. The first two stages of processing the raw data involve QA/QC of the meteorological data and then correlating the surface data with upper air data. While standard NWS surface data include meteorological data records recorded near the beginning of each hour, additional wind speed and wind direction data recorded at one-minute intervals were also included in the development of higher order meteorological data. Automated Surface Observing Systems (ASOS) one-minute wind data obtained for NWS surface stations were processed using AERMINUTE (version 15272), as specified in the companion *AERMINUTE User's Instructions*.[20,21] A third and final stage reads the merged surface and upper air data file and processes surface characteristics data at the tower site for final generation of meteorological files to be read into the AERMOD modeling runs.

The surface conditions data are provided through another preprocessor called AERSURFACE, and processing was conducted consistent with documentation in the *AERSURFACE User's Guide.*[22] AERSURFACE is a tool using land cover data (1992 National Land Cover Data) around the meteorological tower site to principally determine surface roughness by wind sector. A wind sector is defined by a wedge-shaped area extending from the tower out to one kilometer, but not exceeding 30 degrees in angular width. The total circular area had no more than 12 sectors. Two other parameters, Bowen ratio and albedo, are determined more on a regional basis, but are also based on land cover. All three factors can change with the seasons, as well as monthly. Meteorological conditions vary from year to year, resulting in periods that can be abnormally dry one year, and wet the following year, or simply exhibit average conditions. In augmenting Stage 3 parameters to accommodate monthly variability, the Illinois EPA has calculated monthly values for albedo, Bowen ratio, and surface roughness to provide greater temporal resolution in the characterization of surface moisture and in capturing the influence of snow cover. Thus, AERSURFACE has been run in a monthly format for wet, dry, and average moisture conditions for both snow cover and no snow cover.

Determinations regarding snow cover are based upon Local Climatological Data (LCD) from the NWS surface meteorological station. The LCD indicates which days had snow cover and the associated snow depth on those days. Days with greater than a trace amount of snow are considered

[18] *User's Guide for the AERMOD Meteorological Preprocessor (AERMET)*. 2004. EPA-454/B-03-002. U.S. Environmental Protection Agency, Research Triangle Park, NC.
[19] *Addendum – User's Guide for the AERMOD Meteorological Preprocessor (AERMET)*. EPA-454/B-03-002 (November 2014). U.S. Environmental Protection Agency, Research Triangle Park, NC.
[20] *AERMINUTE User's Instructions* (Draft). 2011. U.S. Environmental Protection Agency, Research Triangle Park, NC.
[21] *AERMINUTE User's Instructions*. 2014. U.S. Environmental Protection Agency, Research Triangle Park, NC.
[22] *Revised – AERSURFACE User's Guide* (Revised January 16, 2013). EPA-454/B-08-001 (January 2008). U.S. Environmental Protection Agency, Research Triangle Park, NC.

to have snow cover. The fraction of days per month with snow cover is multiplied by the value for snow cover applicable to albedo and surface roughness values. This approach is also implemented for values involving no snow cover. The computed values (spreadsheet-generated) are added and then divided by the number of days in the month. The result is an averaged value for each month for regional albedo and surface roughness by wind sector.

As for moisture levels, the determination of a "wet" or "dry" recent year has been made based upon precipitation records over a 30-year historical period of time (1981-2010). For this demonstration, guidance from the AERSURFACE User's Guide was utilized in determining moisture classification for a given month. According to this document, a dry month can be considered one in which the precipitation total falls under the lower 30th percentile of monthly records. A wet month can be considered one in which the total precipitation would be above the upper 30th percentile of monthly records. An average month would fall in between the lower and upper 30th percentiles. Months evaluated as being "dry" used the Bowen ratio that was determined for a "dry" month from the AERSURFACE runs. Likewise, "wet" and "average" months determined from the LCD data were linked to corresponding output from the AERSURFACE runs. After the evaluation of monthly moisture, the Bowen Ratio is additionally averaged for days of snow cover, similar to the method used for albedo.

In general, typical monthly values for albedo can be affected by the presence of snow but not by moisture. Similarly, surface roughness can be influenced by snow, but not by moisture. Monthly values for Bowen ratio, however, can be influenced by both snow cover and moisture.

Standard hourly surface data (Integrated Surface Hourly Data: TD-3505 format) obtained from the National Centers for Environmental Information include all necessary surface observation elements (e.g. wind direction, wind speed, etc.) for AERMET processing. However, wind data taken at hourly intervals may not always portray wind conditions for the entire hour, which can be variable in nature compared to more stable meteorological properties not susceptible to wide-ranging changes. Wind data that portray calm conditions for certain hours are not usable for modeling purposes, and must be passed over by AERMOD. To better represent actual wind conditions at the meteorological tower, wind data of one-minute duration (ASOS: TD-6405 format) were obtained for the same meteorological tower and processed using AERMINUTE. The AERMINUTE-processed data were subsequently integrated into the AERMET meteorological data processing to produce final hourly wind records that more closely approach actual conditions at the meteorological tower, with fewer calm wind conditions. This allows AERMOD to apply more hours of meteorology and thereby process more pollutant concentration values when generating final output.

As a guard against excessively high concentrations that could be produced in very light wind conditions, a minimum threshold of 0.5 meters/second in processing meteorological data for use in

AERMOD was applied so that no wind speeds lower than this would be used for determining concentrations.[23] This threshold was specifically applied to the one-minute wind data.

2.6 Model Implementation

2.6.1 Modeling Options

AERMOD (AMS/EPA Regulatory Model) is the preferred Gaussian plume dispersion model for steady state air pollutant modeling in regulatory applications, and the Illinois EPA has relied upon AERMOD (version 18081) and companion User Guide documentation[24] and recent Addendum[25] in developing its Alton Township attainment demonstration. Regulatory default options were specified in developing the attainment demonstration that are consistent with established practices for use of AERMOD in determining NAAQS compliance for SIP revisions. Included among those default options are stack tip downwash, buoyancy induced dispersion, default wind profile coefficients, default vertical potential temperature gradients, and final plume rise.

2.6.2 Dispersion Environment (Rural/Urban Determination)

The urban or rural dispersion regime of emissions sources is a critical parameter in effectively characterizing dispersion in the boundary layer and the model's prediction of downwind concentrations. Generally, urban areas cause higher rates of dispersion because of increased turbulence and buoyancy, a consequence of higher surface roughness and enhanced thermal buoyancy from urban heat island effects. Emissions dispersal downwind from short stacks as compared to that of tall stacks can differ substantially between urban and rural environments, due to significant differences in land use and surface roughness features.

The recommended methodology for making the rural/urban determination for a study area is outlined in Section 7.2.3 (c, d, e) of 40 CFR Part 51 Appendix W, as well as in the *AERMOD Implementation Guide* (p. 19-21).[26] These documents reference two methodologies as acceptable approaches for making this determination. The first approach is the land use type method described by Auer. The second recommended approach is to use population density.

Auer's methodology recommends categorizing an area as urban or rural based on existing land use types. In contrast with the 1992 land use data relied upon for AERSURFACE processing, the Auer's analysis was conducted using 2011 National Land Cover Data (NLCD). In applying the Auer's method to an individual facility, it is generally considered sufficient to evaluate the land use types

[23] *Use of ASOS meteorological data in AERMOD dispersion modeling*. Tyler Fox Memorandum dated March 8, 2013. U.S. Environmental Protection Agency, Research Triangle Park, NC.
[24] *User's Guide for the AMS/EPA Regulatory Model - AERMOD.* 2004. EPA-454/B-03-001 U.S. Environmental Protection Agency, Research Triangle Park, NC.
[25] *Addendum - User's Guide for the AMS/EPA Regulatory Model – AERMOD*. 2014. EPA-454/B-03-001 (September 2004) U.S. Environmental Protection Agency, Research Triangle Park, NC.
[26] Op. cit.

within an area circumscribed by a three-kilometer radius of the facility.[27] If 50% or more of the area is comprised of urban land use types, then the area should be modeled as urban. If land use in the study area is less than 50% urban, then the rural option should be implemented. Table 1 identifies the land use types that signify urban and rural land use per Auer's study.

Table 1
Auer's Land Use Classification Scheme

Type Identifier	Description/Use	Urban or Rural
I1	Heavy Industrial	Urban
I2	Light-Moderate Industrial	Urban
C1	Commercial	Urban
R2/R3	Compact Residential	Urban
R1	Common Residential	Rural
R4	Estate Residential	Rural
A1	Metropolitan Natural Areas	Rural
A2	Agricultural/Crops	Rural
A3	Undeveloped Land (Wild Grasses)	Rural
A4	Undeveloped Rural (Heavily Wooded)	Rural
A5	Water Surfaces (Rivers, Lakes)	Rural

The population density method uses a threshold of 750 people per square kilometer, based on census data, as the determinant of urban or rural. If the population is higher than 750 per square kilometer (usually in a three-kilometer radius around a source), then it is likely an urban environment. This method is not considered as robust as an Auer's land use analysis.

For the Alton Township NAA, an Auer's land use analysis was undertaken on a circular area of three-kilometer radius centered on the Alton Steel "mini mill." As noted previously, the analysis was conducted using the 2011 NLCD database. The data were obtained from the Multi-Resolution Land Characteristics Consortium, or MRLC (www.mrlc.gov/nlcd2011.php). The NLCD 2011 database categorizes land cover into 20 different types at a 30-meter grid cell resolution. These categories were further refined and allocated as indicated in Table 2 to match the 12 land use categories referenced in Auer's classification scheme. Illinois EPA used geographic information system software to extract, tabulate, and map the percentages of urban and rural land cover per Auer's classification scheme for the Alton Steel land use area. The results of that evaluation are provided in Table 3 and Figure 4. The Auer's analysis indicates that the area immediately surrounding and including the Alton Steel, Inc. facility is 73% rural; therefore, the Illinois EPA has implemented the rural option in AERMOD for all emission sources in the modeling domain.

[27] Auer, Jr., A.H. (1978). *Correlation of Land Use and Cover with Meteorological Anomalies*. Journal of Applied Meteorology, 17(5), 636-643.

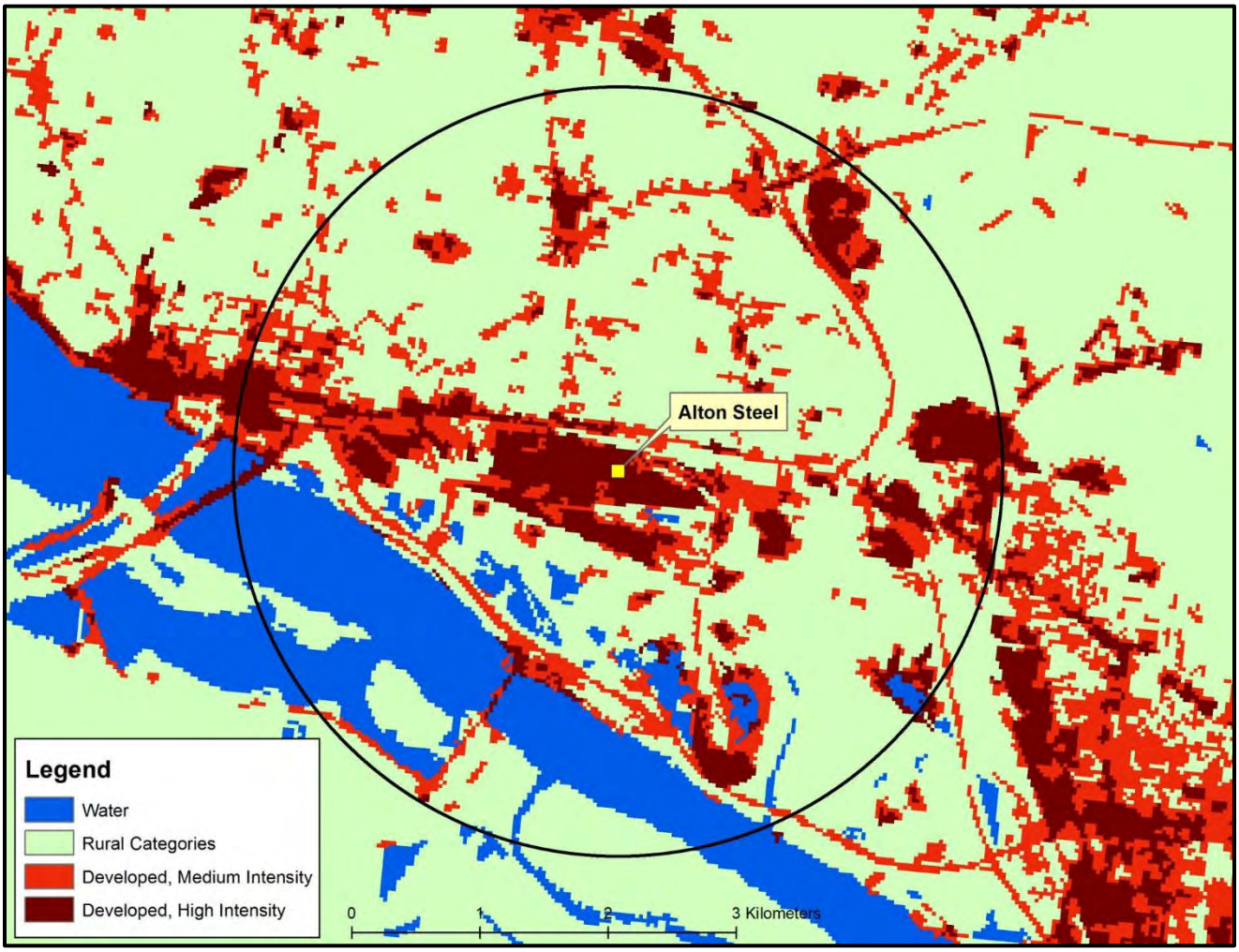
Table 2
Land Cover Mapping from NLCD to Auer's Classifications

Code	NLCD 2011 Description	Auer's Code	Auer's Classification
11	Open Water	A5	Rural
21	Developed, Open Space	A1/R4	Rural
22	Developed, Low Intensity	R1	Rural
23	Developed, Medium Intensity	R2/R3	Urban
24	Developed, High Intensity	I1/I2/C1	Urban
31	Barren Land (Rock/Sand/Clay)	A3	Rural
41	Deciduous Forest	A4	Rural
42	Evergreen Forest	A4	Rural
43	Mixed Forest	A4	Rural
52	Shrub/Scrub	A4	Rural
71	Grassland/Herbaceous	A3	Rural
81	Pasture/Hay	A3	Rural
82	Cultivated Crops	A2	Rural
90	Wood Wetlands	A4	Rural
95	Emergent Herbaceous Wetlands	A3	Rural

Table 3
Auer's Analysis Land Use Percentages by Category – Alton Steel Inc., Alton Township

SO_2 NAA Modeling Auer's Analysis - NLCD 2011				Alton Steel 3 km Ring		
NLCD Value	NLCD 2011 Description	Auer's Code	Auer's Class	Cell Count	Percentage	Totals
23	Developed, Medium Intensity	R2/R3	**Urban**	4,966	15.52%	**26.72%**
24	Developed, High Intensity	I1/I2/C1		3,582	11.20%	
11	Open Water	A5		4,599	14.37%	
21	Developed, Open Space	A1/R4		4,492	14.04%	
22	Developed, Low Intensity	R1		8,070	25.22%	
31	Barren Land (Rock/Sand/Clay)	A3		142	0.44%	
41	Deciduous Forest	A4		2,014	6.29%	
42	Evergreen Forest	A4		0	0.00%	
43	Mixed Forest	A4	**Rural**	0	0.00%	**73.28%**
52	Shrub/Scrub	A4		0	0.00%	
71	Grassland/Herbaceous	A3		121	0.38%	
81	Pasture/Hay	A3		110	0.34%	
82	Cultivated Crops	A2		823	2.57%	
90	Wood Wetlands	A4		2,877	8.99%	
95	Emergent Herbaceous Wetlands	A3		198	0.62%	
Analysis based on 30 meter by 30 meter raster cells extracted for each area.			***Grand Totals:***	***31,994***	***100.00%***	

Figure 4
Auer's Analysis – Alton Steel, Inc. (Alton Township)



2.6.3 Reduced Load Analysis

Emission sources that operate under variable loads are evaluated for the operating scenario (full load versus reduced loads) that will result in worst case ambient air concentrations. The emission rates and stack release parameters associated with the worst-case load conditions are then used in the attainment demonstration modeling. The emission sources at Alton Steel, as well as those for many of the modeled "nearby" Illinois facilities, do not operate with variable loads but rather as "on-off" process operations. Other Illinois facilities have process sources that are amenable to reduced load analysis, but weren't evaluated because of the resource commitment needed to obtain results that would, in the end, show insignificant or no impact on the modeling analysis. A reduced load analysis was conducted for the two coal-fired boilers at the Ameren – Sioux power plant in St. Charles County, Missouri. The analysis used five contiguous years of meteorological data and determined first high and fourth high maximum predicted concentrations at receptors throughout the

nonattainment area. Stack release parameters and modeled impacts for the various load scenarios are provided in Table 4. For both boilers, the 100% load condition was determined to be the worst-case load condition. AERMOD input and output files for the reduced load simulations are provided in Appendix B.

Table 4

Reduced Load Analysis: Stack Parameters & Model Results

Ameren Missouri - Sioux Energy Center

Stack ID	Description	Load Condition	Temperature (K)	Exit Velocity (m/s)	Emission Rate (g/s)	Highest 1st High Concentration (µg/m^3)	Highest 4th High Concentration (µg/m^3)
0001PS	Boiler 1	50%	327.22	9.47	443.60	211.82	163.92
0002PS	Boiler 2	50%	326.14	10.17	443.02		
0001PS	Boiler 1	75%	329.36	11.85	665.40	296.03	226.54
0002PS	Boiler 2	75%	328.66	12.60	649.54		
0001PS	Boiler 1	100%	330.37	15.00	887.20	370.99	283.38
0002PS	Boiler 2	100%	330.37	15.00	866.05		

2.6.4 Monitored Background SO_2

The Illinois EPA's demonstration of modeled compliance with the 1-hour SO_2 NAAQS is based upon the combined impacts of facility-specific emission rates together with monitored background concentrations integrated into the simulations. Regional sources not explicitly modeled in AERMOD, but which are contributors to ambient SO_2 loadings within the nonattainment area, are represented via background monitoring data. Hourly by season SO_2 background concentrations were input to AERMOD using the "BACKGRND" keyword and "SEASHR" parameter on the Source Pathway in the model runstream file. Full implementation of this option requires that the "BACKUNIT" keyword and "BGunits" parameter option of micrograms per cubic meter ("UG/M3") be specified, while also indicating the "SrcIDs" of "ALL" and "BACKGROUND" with the "SRCGROUP" keyword. There are 24 separate SEASHR values input for each of the four seasons, for a total of 96 monitored concentrations. Each of these values represents a three-year average (2014-2016) of the second highest hourly concentration (for each hour of the day) for each season. AERMOD reads these values from the runstream file and then incorporates into the final predicted concentration the background value corresponding to the season and hour modeled.

In the USEPA memorandum from Stephen D. Page entitled *Guidance Concerning the Implementation of the 1-hour SO_2 NAAQS for the Prevention of Significant Deterioration Program,*[28] the text addressing the use of monitored background concentrations in combination with modeled concentrations for comparison to the NAAQS is non-prescriptive on the topic. It does state that a

[28] *Guidance Concerning the Implementation of the 1-hour SO_2 NAAQS for the Prevention of Significant Deterioration Program*. Stephen D. Page memorandum dated August 23, 2010, Research Triangle Park, NC.

conservative approach that would "add the overall highest hourly background SO_2 concentration from a representative monitor to the modeled design value" could be "applied without further justification." Illinois EPA applied a methodology that derives from the USEPA memorandum by Tyler Fox entitled, *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard.*[29] In reference to combining modeled results and monitored background to determine compliance, the narrative states that "an appropriate methodology for incorporating background concentrations in the cumulative impact assessment" for the one-hour SO_2 standard "would be to use multiyear averages" of the 99th-percentile "of the available background concentrations by season and hour-of-day." An associated footnote succinctly states the monitored values to be used: "For 1-hour SO_2 analyses, use the 2nd-highest value for each season and hour-of-day combination or the 4th-highest value for hour-of-day only." The seasonal, hourly-averaged 2014-2016 SO_2 background values for the attainment demonstration were developed from data collected at the East St. Louis monitor. These values are provided in Table 5. The East St. Louis monitor is located in northwestern St. Clair County, approximately 30-kilometers south of the Alton Steel, Inc. facility.

[29] *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO2 National Ambient Air Quality Standard*. Tyler Fox memorandum dated March 1, 2011. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Table 5
Seasonally and Hourly Varying Background SO_2
East St. Louis, Illinois Monitor (2014-2016)[a]

Hour of Day	SO_2 Concentration ($\mu g/m^3$)			
	Winter	Spring	Summer	Fall
1	22.95	14.05	10.47	8.99
2	19.89	14.92	25.30	8.81
3	9.95	12.48	23.91	9.25
4	10.30	15.71	15.79	9.51
5	10.38	22.16	14.75	7.94
6	9.69	11.87	12.65	9.69
7	9.51	15.53	14.40	11.08
8	12.39	14.48	23.21	18.41
9	15.27	17.10	26.09	18.85
10	16.84	22.69	24.78	21.90
11	20.24	24.61	20.68	19.28
12	18.76	16.49	18.58	20.59
13	23.12	14.92	17.01	15.09
14	20.94	12.56	15.36	17.01
15	18.06	15.01	15.44	14.48
16	14.40	12.74	16.93	13.44
17	16.40	16.23	15.01	12.91
18	15.44	13.79	14.75	9.34
19	14.40	13.52	12.48	10.21
20	10.38	12.48	9.34	6.81
21	10.73	9.51	14.66	7.15
22	14.57	10.03	10.30	8.38
23	15.36	13.87	8.90	6.89
24	27.40	25.30	9.77	7.94

[a] Seasons defined as: Winter (Dec, Jan, Feb), Spring (Mar, Apr, May), Summer (Jun, Jul, Aug), Fall (Sep, Oct, Nov); Latitude-longitude coordinates of monitor : (+38.61203 -90.16048)

2.6.5 Model Execution and Output Evaluation

The nonattainment area SIP modeling is an iterative process of evaluating impacts at design value receptors, integrating necessary emission reductions or stack release configuration changes from culpable sources, and remodeling to assess NAAQS attainment. In this modeling demonstration, the one-hour primary SO_2 NAAQS is attained when the highest five-year average of the fourth high maximum daily one-hour average concentration (by receptor) is less than or equal to 75 ppb. Since

AERMOD generates output concentrations in micrograms per cubic meter, to assure ease of comparison of model output to the NAAQS, the level of the standard (75 ppb) was converted to micrograms per cubic meter based on the ideal gas law at standard temperature (68 degrees Fahrenheit) and pressure (1 atmosphere), as follows:

Concentration ($\mu g/m^3$) = [SO_2 Molecular Weight x Concentration (ppm)] / 0.02445

= [(64) x (0.075)] / (0.02445)

= 196.32 $\mu g/m^3$

3.0 Attainment Demonstration

The "Round 2" Wood River Study Area modeling inventory was used as the starting point for creating the Alton Township NAA modeling inventory. A re-evaluation of "nearby" background sources was instituted, which reflected a shift in modeling focus from Dynegy's Wood River Power Station to the Alton Steel "mini-mill." It should be noted, however, that this re-evaluation was also driven by the need to address allowable emissions (for the SIP revision) rather than actual emissions (for an area designation recommendation), as well as the changing perception regarding appropriate modeling domain size. Initially, all permitted SO_2-emitting facilities within a 10-kilometers radius of the Alton Steel facility were considered for inclusion. The only discretely modeled ("nearby") facility from the "Round 2" modeling not captured within the area circumscribed by this 10-kilometers radius was the Christ Brothers Products LLC facility. Christ Brothers Products LLC was not included as a "nearby" source in the nonattainment area modeling simply because of the changed domain size. An exception to this geographic limitation was made for the Ameren – Sioux power plant in St. Charles County, Missouri, located approximately 13-kilometers west-northwest from Alton Steel. Given the magnitude of allowable SO_2 emissions from this power plant, the potential of the facility for causing significant concentration gradients within the nonattainment area was considered likely. Low-emitting facilities that would require a significant commitment of Illinois EPA resources for digitization to generate building downwash inputs were excluded from the modeling inventory.

Aside from the Ameren – Sioux power plant, the nonattainment area modeling inventory included the following "nearby" facilities: WRB Refining Inc. (formerly named ConocoPhillips), National Maintenance and Repair Inc., GBC Metals LLC (d/b/a Olin Brass), Olin Corporation, Alton Water Treatment Facility, ConocoPhillips Hartford Lubricant Plant, Alton Memorial Hospital, St. Anthony's Hospital, St. Clare's Hospital, and Charles E. Mahoney Company. Facilities which have not been explicitly included in the modeling inventory are considered represented by ambient (background) monitoring data.

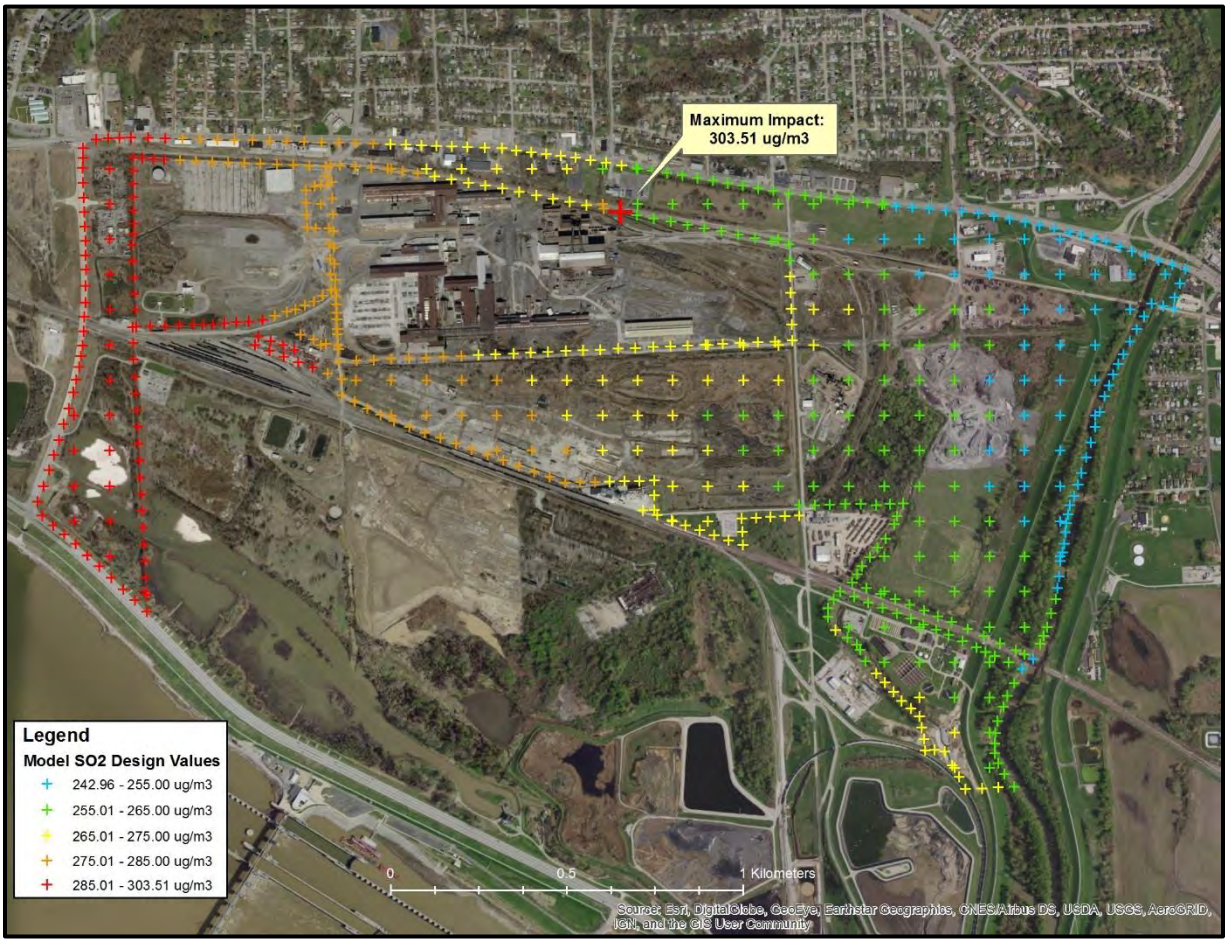
The "Round 2" modeling results for the Wood River Study Area yielded cumulative impacts along and near the northern property line of the Alton Steel, Inc. facility that exceeded the 1-hour SO_2 NAAQS and resulted in the current nonattainment designation for a portion of Alton Township. A

culpability analysis conducted on the modeled sources identified four downward angling vents associated with the LMF baghouse at Alton Steel as principally causing the modeled violations.

For the current analysis (Alton Township attainment demonstration modeling), the initial modeling run (Run X) used allowable SO_2 emission rates for all sources. These emission rates were determined from construction/operating permits and/or state rules, with the most restrictive identified limit selected. The initial run retained the stack parameter inputs and emissions release configurations used in the "Round 2" modeling. Model output was generated for all 607 nonattainment area receptors. The output was generated consistent with procedures for evaluating the 1-hour SO_2 NAAQS, with design values representing the fourth highest modeled concentration averaged over five years of meteorological data (years 2012-2016) for all receptors. The initial run results showed modeled violations throughout the nonattainment area, with some violations primarily due to Alton Steel, but many more violations due to contributions from the Ameren – Sioux power plant. The maximum predicted 99^{th} percentile 1-hour average concentration (design value) was 303.5 micrograms per cubic meter ($\mu g/m^3$) and principally due to Alton Steel, Inc. The areal distribution of the modeled design values is provided in Figure 5.

Appendix C provides a spreadsheet containing a listing of all modeled emission sources (plus background) and the corresponding 99^{th} percentile concentration contributions of these sources to all 607 receptors, including the maximum design value receptor.

Figure 5
Alton Township NAA Modeling
Maximum Predicted 99th Percentile 1-Hour SO_2 Concentrations
Allowable Emission Rates (*Run X*)



To address the elevated impacts attributable to Alton Steel emission sources – more specifically, to reduce the impacts from the LMF vents – the Illinois EPA requested the assistance of the company in finding a resolution. Through collaboration and cooperative exchange, it was decided that changing the LMF exhaust configuration from the four downward-angled vents to a single 70-foot high, three-foot diameter stack with an unobstructed (no raincap), vertically-directed exhaust stream (temperature = 408.15 K; flow rate = 64,300 ACFM) would be sufficient to eliminate modeled violations at receptors for which Alton Steel was the principal contributing source. This proposed change was memorialized in Construction Permit #18020009 (see Appendix D), and this permitting action provides the federal enforceability supporting this portion of the attainment demonstration element of the revised SIP. A modeling run (Run Y) based upon the future reconfigured LMF "stack" yielded a maximum predicted 99th percentile 1-hour average concentration of 301.8 µg/m^3. Though well above

the NAAQS, the maximum design value and all other modeled violations are primarily due to the impacts of the Ameren – Sioux power plant. The areal distribution of all predicted design values is shown in Figure 6.

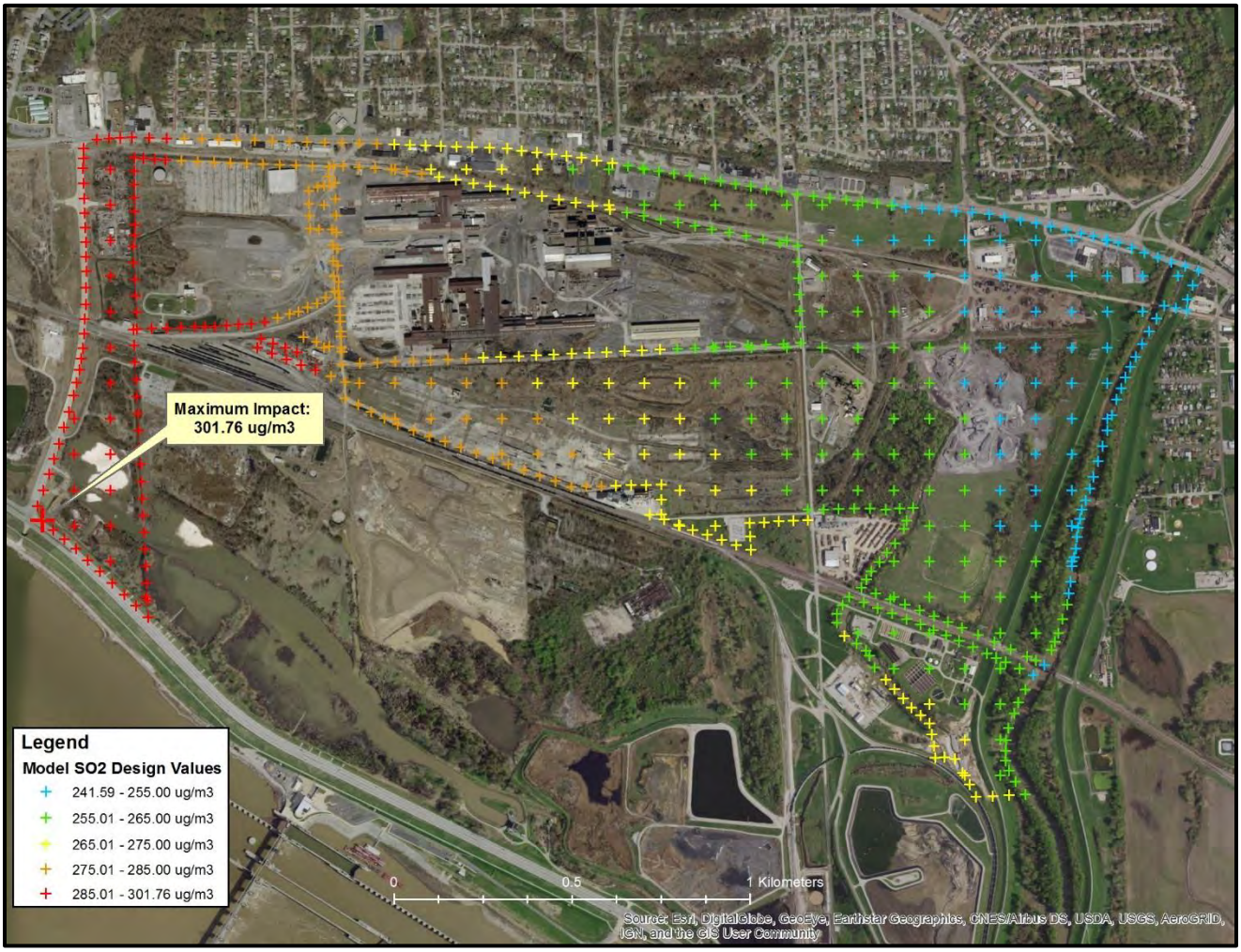
Appendix E provides a spreadsheet containing a listing of all modeled emission sources (plus background) and the corresponding 99th percentile concentration contributions of these sources to the maximum design value receptor and all other receptors.

Figure 6

Alton Township NAA Modeling

Maximum Predicted 99th Percentile 1-Hour SO_2 Concentrations

New LMF Stack (*Run Y*)



As noted previously, the Ameren – Sioux power plant in St. Charles County, Missouri, was included in this modeling analysis because of its proximity to the Alton Township NAA and the magnitude of its allowable emissions. The two coal-fired boilers were modeled using information provided by the

Missouri Department of Natural Resources. This information included a specific maximum hourly coal usage design rate (269.4753 tons coal/hour for each boiler) and a permitted emission factor (Boiler #1 – 26.13 lbs SO_2/ton coal; Boiler #2 – 25.507 lbs SO_2/ton coal). Using these design rate and emission factor values, the calculated allowable emission rates for Boiler #1 and Boiler #2 were 7,041.39 lbs/hour and 6,873.51 lbs/hour, respectively. These rates differ from, and are more restrictive than, the allowable limit appearing in Missouri's Code of State Regulations (10 CSR 10-6.261; Table II – Sources Subject to SO_2 Emission Limits in Place Prior to 2010: Emission Limit per Source – 4.8 lbs SO_2/mmBtu actual heat input (daily average)). Based upon the Missouri regulation and the rated heat input capacity of the individual boilers (4,920 mmBtu/hour, each), the modeled emission rate would be:

(4,920 mmBtu/hour) x (2) x (4.8 lbs SO_2/mmBtu) = 47,232 lbs/hour = 23,616 lbs/hour, per boiler

Slightly more restrictive than the state regulation is the operating permit emission limit for the boilers (4.73 lbs SO_2/mmBtu). Based upon the operating permit limit, the emission rate would be:

(4,920 mmBtu/hour) x (2) x (4.73 lbs SO_2/mmBtu) = 46,543.2 lbs/hour = 23,271.6 lbs/hour, per boiler

Since the most restrictive of the Ameren – Sioux allowable emission rates was causing extensive modeled violations in the preceding runs and the State of Illinois does not have the authority to unilaterally impose limits on a facility in an adjoining state, assistance was sought from USEPA Region 5 staff in addressing this issue with obvious "cross-border" implications and limitations. USEPA Region 5 staff suggested the use of 60th percentile and 70th percentile heat input values as possible "representative levels" under the recent revisions to the *Guideline on Air Quality Models*, which provide for the use of an operating level in determining the modeled emission rate, which is a "temporally representative level when actually operating, reflective of the most recent 2 years" (40 CFR Part 51, Appendix W, Table 8-1). Modeling runs were conducted to evaluate these levels, but the results of these evaluations did not markedly improve upon prior results. In the absence of significantly improved results, a series of iterative simulations were conducted in which the Ameren – Sioux boilers were evaluated for emission reductions based upon "proportional rollback." This concept derives from the recognition that AERMOD output concentrations are directly proportional to input emission rates. The proportional rollback emission rate necessary to attain the target concentration (196.32 μg/m^3) would be determined for the maximum design value receptor as follows:

"Rollback Rate" = {(196.32 μg/m3)/(Total Receptor Concentration)} x (Initial Source Emission Rate)

Using the culpability analysis output from the Scenario Y run and a succession of three "proportional rollback" runs with progressively increasing reductions in the allowable emission rates for the Ameren – Sioux boilers, a plausible modeled attainment was demonstrated. The allowable emission levels were reduced 38% to 4,365.662 lbs/hour for Boiler #1 and to 4,261.576 lbs/hour for Boiler #2 to make this demonstration. The results of only the final run (Run Z) of the iterative succession of

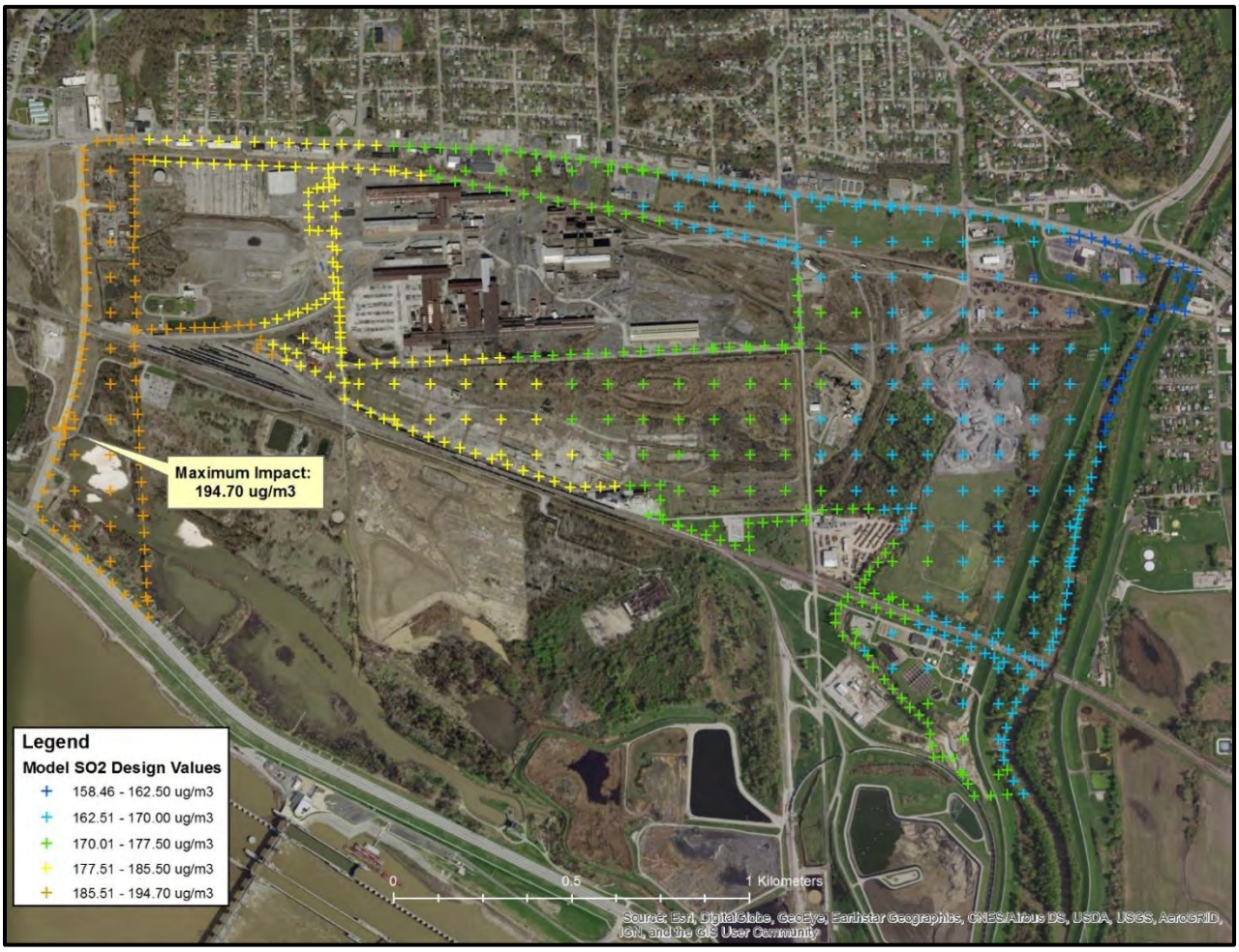
"proportional rollback" runs are provided in this TSD. Run Z yielded a maximum predicted 99th percentile 1-hour average concentration of 194.7 μg/m^3. The areal distribution of all predicted concentrations (design values) is depicted in Figure 7. It may be noted that even the most restrictive of these allowable emission level model runs has significantly higher emissions than the recent actual emissions from the Ameren – Sioux plant, in large part because the source is complying with Mercury and Air Toxics Standards (MATS) requirements through operation of its SO_2 controls. However, USEPA guidance, as discussed with USEPA Region 5, will not allow Illinois to use MATS as a more restrictive regulation because SO_2 is only one option for compliance.

Figure 7

Alton Township NAA Modeling

Maximum Predicted 99th Percentile 1-Hour SO_2 Concentrations

"Rollback" Emission Rates (*Run Z*)



Appendix F provides a spreadsheet containing a listing of all modeled emission sources (plus background) and the corresponding 99th percentile 1-hour concentration contributions of these sources to all 607 receptors, including the maximum design value receptor. Illinois has completed all

the necessary work within its borders to demonstrate attainment based upon culpability of any Illinois sources. A full modeling demonstration of attainment at allowable emission rates necessitates USEPA intervention to secure the necessary lower allowable emission rates for the Ameren – Sioux coal-fired boilers.

Appendices A - F

Appendix A

Alton Township NAA – Modeling Inventory

Appendix A

Alton Township NAA – Modeling Inventory

Base Run X (Allowable Emissions)[a]

AERMOD	Source Description	Source Location (UTM Coordinates)		Stack Height	Temperature	Exit Velocity	Stack Diameter	Emission Rate
Source ID		East (m)	North (m)	(m)	(K)	(m/s)	(m)	(g/s)
0027AS1	EAF BH1 (Alton Steel)	747898.46	4307951.71	30.48	394.26	9.459	7.376	4.448
0027AS2	EAF BH2 (Alton Steel)	747956.48	4307951.71	30.48	394.26	9.459	7.376	4.448
0052AS1	LMF BH Vent 1 (Alton Steel)	747874.75	4307823.77	15.24	408.15	6.698	1.059	0.353
0052AS2	LMF BH Vent 2 (Alton Steel)	747878.53	4307823.77	15.24	408.15	6.698	1.059	0.353
0052AS3	LMF BH Vent 3 (Alton Steel)	747883.19	4307823.77	15.24	408.15	6.698	1.059	0.353
0052AS4	LMF BH Vent 4 (Alton Steel)	747886.84	4307823.77	15.24	408.15	6.698	1.059	0.353
0031AS	14-inch Rolling Mill Reheat Furnace (Alton Steel)	747645.22	4307691.38	32.31	366.48	0.727	4.877	0.025
0099AS	Caster (Alton Steel)	747849.10	4307673.65	19.81	294.26	0.001	9.00	0.013
0002NM	Cleaver Brooks Boiler Stack 1 (National Maintenance & Repair)	750915.14	4300903.33	10.36	505.37	7.115	0.61	1.260
0004NM	Cleaver Brooks Boiler Stack 2 (National Maintenance & Repair)	750918.74	4300902.96	10.36	505.37	7.115	0.61	1.260
0001GBC	Ascast Furnaces (ASC1 & ASC2) + DC Casting Units #1/4 (GBC Metals)	750127.86	4306278.30	12.50	372.04	11.00	0.640	0.025
0002GBC	DC Casting Unit #2 (GBC Metals)	750205.90	4306131.67	9.75	327.59	1.55	0.762	0.013

0003GBC	DC Casting Unit #5 (GBC Metals)	750198.95	4306129.19	9.75	322.00	19.15	1.372	0.013
0054GBC	DC Casting Unit #3 (GBC Metals)	750154.69	4306167.86	6.09	355.37	19.16	0.396	0.013
0006GBC	Induction Form Stations & Mix Muller + Low Profile turbine (GBC Metals)	750074.19	4306258.69	12.50	372.04	11.00	0.640	0.0004
0011GBC	Slab Heating Furnace SF-1 (GBC Metals)	750235.45	4306239.12	18.59	413.15	1.97	1.524	0.024
0052GBC	Slab Heating Furnace SF-2 (GBC Metals)	750254.17	4306226.00	24.08	755.37	1.96	1.067	0.0024
0053GBC	Slab Heating Furnace SF-3 (GBC Metals)	750257.31	4306224.78	17.98	755.37	12.14	1.067	0.0024
0017GBC	Strip Anneal #4 (SA-4) (GBC Metals)	750149.48	4308387.19	27.43	449.82	12.61	0.488	0.0035
0050GBC	Strip Anneal #5 (SA-5) (GBC Metals)	750150.53	4308372.55	27.43	505.37	16.47	0.427	0.0009
0051GBC	Strip Anneal #6 (SA-6) (GBC Metals)	750206.13	4308389.28	33.53	577.59	19.16	0.396	0.0009
0029GBC	Strip Anneal #3 (SA-3) (GBC Metals)	750437.95	4308327.09	30.48	449.82	19.15	0.396	0.0007
0030GBC	Strip Anneal #7 (SA-7) (GBC Metals)	750221.00	4308335.00	27.13	533.15	11.80	0.457	0.0006
0079OL	Package Boiler (B-4) (Olin Corporation)	750886.19	4308613.48	10.67	477.59	25.87	0.610	0.04968
0090OL	Package Boiler (B-3) (Olin Corporation)	750890.30	4308618.32	10.67	477.59	25.87	0.610	0.04968
0091OL	Package Boiler (B-2) (Olin Corporation)	750891.24	4308612.33	10.67	477.59	25.87	0.610	0.04968
0092OL	Package Boiler (B-1) (Olin Corporation)	750887.96	4308608.43	10.67	477.59	25.87	0.610	0.04968

0093OL	Package Boiler (B-5) (Olin Corporation)	750882.86	4308609.52	10.67	477.59	25.87	0.610	0.04968
0283OL	Package Boiler (B-6) (Olin Corporation)	750905.84	4308625.03	10.67	477.59	25.87	0.610	0.04968
0385OL	Rotary Retort (Olin Corporation)	750504.03	4308263.85	4.88	322.04	8.12	0.509	0.423
0001ATF	2000 KW Emergency Generator (Alton Water Treatment Facility)	742582.80	4309460.30	6.71	477.59	25.94	0.204	0.00034
0026CPH	Main Boiler Stack (Conoco Philips Hartford Lubricant Plant)	752210.97	4299870.14	10.36	460.93	5.01	0.155	0.0024
0001PS	Boiler 1 Stack (Portage de Sioux)	735067.23	4310829.84	150.10*	330.37	15.00	7.193	887.200
0002PS	Boiler 2 Stack (Portage de Sioux)	735065.64	4310820.32	150.12*	330.37	15.00	7.193	866.048
0002AM	3 Boilers (Alton Memorial Hospital)	746447.48	4309537.98	27.13	472.04	7.35	0.914	0.0077
0004ANTH	Boilers 1, 2, 3, and 4 Stack (St. Anthony's Hospital)	745096.49	4310363.44	19.51	477.59	1.79	0.710	0.0048
0002SC	D-B Boiler #7428 (Stack 0002) (St. Clare's Hospital)	745400.67	4308374.84	13.41	616.48	5.42	0.762	0.0028
0003SC	D-B Boiler #7429 (Stack 0003) (St. Clare's Hospital)	745405.48	4308373.24	13.41	616.48	5.42	0.762	0.0028
0004SC	D-B Boiler #7430 (Stack 0004) (St. Clare's Hospital)	745409.53	4308372.26	13.41	616.48	5.42	0.762	0.0028
0004CHM	Drum Asphalt Mixer Stack (Charles E. Mahoney)	749514.00	4309867.90	7.62	419.26	20.22	1.219	2.255
0005CHM	Drum Dryer Asphalt Plant Stack (Charles E. Mahoney)	749431.35	4309859.00	7.62	419.26	20.22	1.219	2.255
0007CHM	Asphalt Heaters and Boilers Stack (Charles E. Mahoney)	749520.31	4309905.72	3.05	449.82	21.31	0.305	0.353

0004WRB	CR-1 ULD HCU STK12-4 (WRB)	754868.40	4302624.00	65.00*	608.15	14.81	4.572	7.386
0018WRB	DU-1 Primary Heater South F-301 STK5-2 (WRB)	754326.10	4303076.20	45.72	339.00	3.28	2.591	0.944
0019WRB	DU-1 Secondary Heater North F-302 STK5-1 (WRB)	754325.60	4303099.10	56.39	432.00	8.24	2.438	1.709
0020WRB	SMR Heater STK12-8 (WRB)	754872.30	4302749.40	60.96	672.00	14.14	3.658	3.588
0024WRB	RAU Debutanizer Heater STK5-5 (WRB)	754469.50	4302942.70	22.86	727.00	11.72	1.524	0.534
0027WRB	CAU RO Still Heater STK5-4	754467.40	4302962.50	25.91	700.00	7.88	2.195	0.741
0043WRB	Catalytic Cracking Unit No. 2 (Wet Gas Scrubber) STK6-3B	754847.70	4302894.50	53.34	579.00	8.26	3.353	9.857
0050WRB	HCF Furnace STK12-3 (WRB)	754723.80	4302515.50	54.56	605.00	11.23	1.920	0.696
0056WRB	HCNHT Furnace STK12-1 (WRB)	754574.80	4302695.20	32.61	488.00	5.82	1.219	0.003
0060WRB	Alky HM-1 Heater STK6-5	755121.20	4302814.40	28.96	533.00	3.17	2.286	0.292
0061WRB	Alky HM-2 Heater STK6-6	754929.00	4303042.40	46.02	700.00	17.35	1.753	0.772
0068WRB	Boiler 15 STK12-15 (WRB)	754858.70	4302776.00	40.23	491.00	20.11	2.134	2.808
0070WRB	Boiler 17 STK12-17 (WRB)	754901.20	4302783.60	45.72	431.00	17.51	3.048	5.461
0071WRB	Boiler 18 STK6-9 (WRB)	754919.20	4302807.80	30.48	435.00	15.72	1.890	1.943
0073WRB	HDU-1 Charge Heater STK13-1 (WRB)	755216.70	4302586.90	45.72	694.00	10.08	1.524	0.525
0076WRB	HDU-2 Charge Heater STK12-14 (WRB)	755021.10	4302529.40	45.72	755.00	10.26	1.768	0.631
0077WRB	CR-3 Stabilizer Reboiler H-2 STK12-9 (WRB)	755013.20	4302579.70	45.72	783.00	2.27	2.377	0.246
0078WRB	CR-3 Regen Heater H-3 STK12-10 (WRB)	755014.40	4302581.60	45.72	922.00	2.41	2.377	0.198

0079WRB	CR-3 Charge Heater H-4 STK12-11 (WRB)	755018.30	4302570.40	45.72	700.00	11.98	2.377	1.404
0080WRB	CR-3 First Interreactor Heater H-5 STK12-13 (WRB)	755018.70	4302546.80	45.72	672.00	9.75	2.377	1.210
0081WRB	CR-3 Second Interreactor Heater H-6 STK12-12 (WRB)	755018.60	4302558.00	45.72	672.00	5.44	2.377	0.663
0083WRB	DHT Charge Heater STK12-5 (WRB)	755017.50	4302643.50	45.72	839.00	18.31	1.615	0.843
0120WRB	F-200 F-202 F-203 F-204 F-205 STK5-3	754414.80	4303015.80	89.10*	472.00	10.62	4.267	5.734
0128WRB	SRU North Oxidizer STK3-1	752927.80	4303076.40	38.10	792.00	1.76	2.195	2.885
0144WRB	SRU South Oxidizer STK3-2	752928.10	4303070.40	38.10	792.00	1.76	2.195	2.885
0621WRB	Distilling Flare FLR1-1 (WRB)	754277.40	4303296.20	55.21	1255.00	20.00	0.866	0.079
0623WRB	Aromatic North Flare FLR13-1 (WRB)	755265.80	4302634.50	61.93	1255.00	20.00	0.430	0.210
0624WRB	Aromatic South Flare FLR13-2 (WRB)	755267.00	4302549.20	63.63	1255.00	20.00	1.040	0.121
0625WRB	North Property Flare FLR1-2 (WRB)	754485.40	4303321.20	65.48	1255.00	20.00	2.200	2.443
0628WRB	Boiler 4 STK9-1 (WRB)	752782.10	4302397.30	22.86	672.00	29.42	1.219	1.423
0629WRB	Boiler 5 STK9-3 (WRB)	752762.93	4302362.97	22.86	427.00	3.24	2.134	1.134
0633WRB	DCU Charge Heater H-20 STK10-2 (WRB)	753183.30	4302406.70	54.86	533.00	14.56	1.524	1.517
0643WRB	Catalytic Cracking Unit No. 1 (Wet Gas Scrubber) STK6-2B	754863.70	4302894.50	53.34	352.59.00	10.17	3.353	9.857
0685WRB	Alky Flare FLR6-1 (WRB)	755034.60	4303080.00	66.77	1255.00	20.00	2.220	0.255
0702WRB	VF-4 Charge Heater H-28 STK9-6	753053.00	4302387.20	54.86	466.00	7.04	7.930	0.215
0703WRB	DCU Preheater H-36 STK10-3 (WRB)	753193.20	4302396.10	54.86	644.00	6.62	7.570	0.207
0704WRB	DU-4 Charge Heater H-24 STK9-5 (WRB)	753050.90	4302412.20	54.86	560.00	14.72	37.720	1.028

0706WRB	HP-1 Flare FLR12-2 (WRB)	755193.80	4302792.10	43.09	1273.00	20.00	0.942	0.001
0709WRB	HP-1 Heater STK12-6 (WRB)	755193.00	4302792.10	38.71	455.00	18.26	2.286	0.043
0711WRB	ULD H-4 Reboiler STK12-2 (WRB)	755038.00	4302710.50	39.78	677.00	8.01	1.798	0.585
0712WRB	SZorb Heater STK13-3 (WRB)	755218.20	4302666.40	45.72	652.07	4.09	2.896	0.585
0715WRB	Distilling West Flare FLR10-1 (WRB)	753646.00	4302545.40	61.55	1273.00	20.00	0.384	0.019
0716WRB	SZU Stack (0716) (WRB)	755240.90	4302682.20	13.49	324.96	3.70	0.610	0.529
0717WRB	Benzene Extraction Unit Heater H-3 STK6-4 (WRB)	754922.50	4302928.90	56.39	516.00	7.72	2.957	1.950
0718WRB	Lubes Flare FLR12-1 (WRB)	754609.60	4302495.50	48.79	1273.00	20.00	0.396	0.060
0724WRB	VOC Flare (West) FLR4-1 (WRB)	753427.00	4303072.60	10.82	1255.37	20.00	0.427	0.102
0725WRB	VOC Flare (East) FLR4-2 (WRB)	753440.50	4303073.00	10.82	1255.37	20.00	0.427	0.102
0726WRB	Coker North Flare FLR1-3 (WRB)	754946.10	4303683.30	60.96	1255.37	20.00	0.387	0.023
0727WRB	VF-5 Heater/H350H4 STK1-1 (WRB Refining)	754936.80	4303458.30	60.96	477.59	12.21	3.048	3.120
0728WRB	Coker North Heater/H351H2 STK1-2 (WRB)	754952.70	4303304.10	64.01	477.59	9.30	3.048	2.574
0729WRB	Coker North Heater/H351H1 STK1-3 (WRB)	754985.20	4303304.90	64.01	477.59	9.36	3.048	2.574
0730WRB	DCNH Heater/H353H3 STK1-4 (WRB)	754903.70	4303543.30	24.38	477.59	22.14	0.640	0.156
0731WRB	SRU-F Oxidizer STK3-3 (WRB)	752913.10	4303020.00	60.66	477.59	8.34	1.219	6.311
0732WRB	SRU-E Oxidizer STK3-4 (WRB)	753001.50	4303022.90	60.66	477.59	8.34	1.219	6.311
0733WRB	ULD-2 H-1 Process Heater STK6-7	754950.20	4302958.96	34.14	640.00	5.27	1.372	0.2495
0734WRB	ULD-2 H-2 Process Heater STK6-8	754959.53	4302969.74	45.72	477.59	6.59	1.219	0.4297

0735WRB	HP-2 Flare FLR7-1 (WRB)	755262.00	4302919.70	43.09	1255.37	20.00	0.942	0.019
0736WRB	HP-2 Heater STK7-1 (WRB)	755262.90	4302919.70	39.62	418.41	4.74	3.841	9.946
0739WRB	NHT Charge Heater H-21 STK10-1 (WRB)	753160.30	4302411.90	30.48	446.18	0.85	1.372	0.130
0900WRB	CR-1 Regen Vent STK12-18 (WRB)	754883.68	4302607.56	17.68	320.87	13.69	0.152	1.176
0901WRB	CR-3 Regen Vent STK 12-19 (WRB)	755029.45	4302593.48	9.14	320.87	38.02	0.091	1.165
FLR_MVC	Barge Loading Flare (WRB Refining)	751375.17	4302867.10	12.19	1273.00	20.00	1.219	0.0010

* Four stacks are above GEP Stack Height: 0004WRB actual stack height is 106.68 m but GEP height is 65 m, 00120WRB actual stack height is 95.10 m but GEP height is 89.10 m. 0001PS actual stack height is 151.33 m but GEP height is 150.1 m. 0002PS actual stack height is 151.33 m but GEP height is 150.12 m For SIP modeling, credit is not given for heights above GEP, thus these stacks have their heights set at GEP in AERMOD.

[a] For the second scenario (Run Y) with the new LMF vertical stack replacing the 4 downward angled vents, the new source ID, stack parameters, and emission rate are as follows:

AERMOD	**Source Description**	**Source Location (UTM Coordinates)**		**Stack Height**	**Temperature**	**Exit Velocity**	**Stack Diameter**	**Emission Rate**
Source ID		**East (m)**	**North (m)**	**(m)**	**(K)**	**(m/s)**	**(m)**	**(g/s)**
0052AS	New LMF Stack (Alton Steel)	747874.06	4307836.75	21.336	408.15	46.2107	0.9144	1.4112

Appendix B

Reduced Load Analysis - AERMOD Input and Output Files

DVD Media

Appendix C

Alton Township NAA Culpability Spreadsheet - Allowable Emission Rates

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

Culpability Groups Description Key

0001PS/0002PS: Boiler 1 and Boiler 2 stacks from Portage De Sioux Plant in Missouri
0052AS1-AS4: Alton Steel LMF Vents 1,2,3,4.
BACKGRND: Background SO_2 (derived from East St. Louis monitor)
0027AS1: Alton Steel EAF Baghouse 1 stack
0027AS2: Alton Steel EAF Baghouse 2 stack
0031AS: Alton Steel 14-inch Rolling Mill Reheat Furnace stack
0099AS: Alton Steel Caster
GBC_OL: The combined contribution from GBC Metals and Olin Corporation (20 stacks)
NM: National Maintenance & Repair (2 stacks)
ATF: Alton Water Treatment Facility (1 stack)
CPH: Conoco-Philips Hartford Plant (1 stack)
AM_SC_AN: The combined contribution from Alton Memorial Hospital (3 stacks), St. Anthony's Hospital (1 stack), and St. Claire's Hospital (3 stacks)
CHM: Charles E. Mahoney Plant (3 stacks)
WRB: WRB Refininery (62 stacks)

Contributions to the 99th percentile 1-Hour SO_2 concentration

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748051.00	4307977.90	303.5	1-HR	4TH	27.2	26.7	57.12	58.21	60.47	61.14	10.93	0.018	0.041	0.705	0.559	0.029	0.012	0.0001	0.0003	0.0030	0.03	0.41
746409.70	4307115.30	301.8	1-HR	4TH	143.5	139.9	0.01	0.01	0.01	0.01	17.89	0.009	0.009	0.001	0.000	0.002	0.015	0.0001	0.0000	0.0004	0.04	0.37
746441.10	4307088.70	301.3	1-HR	4TH	143.2	139.7	0.01	0.01	0.01	0.01	17.89	0.009	0.009	0.001	0.000	0.002	0.015	0.0001	0.0000	0.0004	0.04	0.37
746470.80	4307375.10	301.3	1-HR	4TH	141.7	138.3	0.01	0.01	0.01	0.01	20.70	0.030	0.030	0.001	0.000	0.002	0.015	0.0000	0.0000	0.0005	0.04	0.40
746472.50	4307062.20	301.2	1-HR	4TH	143.5	139.9	0.01	0.01	0.01	0.01	17.38	0.008	0.008	0.000	0.000	0.002	0.014	0.0001	0.0000	0.0004	0.03	0.33
746504.00	4307035.70	301.0	1-HR	4TH	143.4	139.8	0.01	0.01	0.01	0.01	17.38	0.008	0.008	0.000	0.000	0.002	0.014	0.0001	0.0000	0.0004	0.03	0.34
746395.90	4307154.70	300.9	1-HR	4TH	143.0	139.5	0.01	0.01	0.01	0.01	17.89	0.009	0.009	0.001	0.000	0.002	0.015	0.0001	0.0000	0.0005	0.04	0.37
746537.80	4307003.70	300.7	1-HR	4TH	142.4	138.9	0.01	0.01	0.01	0.01	18.92	0.010	0.010	0.001	0.000	0.002	0.015	0.0001	0.0000	0.0004	0.04	0.37
746412.20	4307200.10	300.5	1-HR	4TH	142.3	138.9	0.00	0.00	0.00	0.00	19.04	0.002	0.002	0.000	0.000	0.001	0.005	0.0000	0.0000	0.0001	0.01	0.15
746707.20	4306843.60	300.3	1-HR	4TH	142.6	138.9	0.01	0.01	0.01	0.01	18.15	0.011	0.012	0.001	0.000	0.002	0.020	0.0001	0.0000	0.0005	0.05	0.46
746571.70	4306971.70	300.2	1-HR	4TH	142.5	139.1	0.01	0.01	0.01	0.01	18.06	0.009	0.009	0.001	0.000	0.002	0.018	0.0001	0.0000	0.0004	0.04	0.42
746500.00	4307400.00	300.1	1-HR	4TH	141.8	138.4	0.00	0.00	0.00	0.00	19.79	0.000	0.000	0.000	0.000	0.001	0.005	0.0000	0.0000	0.0002	0.01	0.15
746484.00	4307420.60	300.0	1-HR	4TH	142.5	139.0	0.00	0.00	0.00	0.00	18.25	0.000	0.000	0.000	0.000	0.001	0.007	0.0001	0.0000	0.0002	0.02	0.19
746457.70	4307329.50	299.9	1-HR	4TH	140.8	137.6	0.01	0.01	0.01	0.01	20.96	0.031	0.031	0.001	0.000	0.002	0.015	0.0000	0.0000	0.0004	0.04	0.39
746428.50	4307245.50	299.9	1-HR	4TH	141.4	138.0	0.00	0.00	0.00	0.00	20.37	0.001	0.001	0.000	0.000	0.001	0.005	0.0000	0.0000	0.0001	0.01	0.14
746673.30	4306875.60	299.8	1-HR	4TH	142.4	138.7	0.01	0.01	0.01	0.01	18.06	0.011	0.012	0.001	0.001	0.003	0.022	0.0001	0.0000	0.0005	0.05	0.50
746639.50	4306907.60	299.6	1-HR	4TH	142.3	138.6	0.01	0.01	0.01	0.01	18.06	0.011	0.012	0.001	0.001	0.003	0.022	0.0001	0.0000	0.0005	0.05	0.50
746443.10	4307287.50	299.6	1-HR	4TH	140.8	137.5	0.01	0.01	0.01	0.01	20.70	0.030	0.030	0.001	0.000	0.002	0.015	0.0000	0.0000	0.0004	0.04	0.40
746605.60	4306939.70	299.5	1-HR	4TH	142.1	138.7	0.01	0.01	0.01	0.01	18.06	0.009	0.009	0.001	0.000	0.002	0.018	0.0001	0.0000	0.0004	0.04	0.42
746497.10	4307466.10	298.9	1-HR	4TH	141.1	137.7	0.00	0.00	0.00	0.00	19.79	0.001	0.001	0.000	0.000	0.001	0.009	0.0001	0.0000	0.0003	0.02	0.22
746500.00	4307300.00	298.1	1-HR	4TH	138.6	135.4	0.02	0.02	0.02	0.02	22.81	0.068	0.068	0.002	0.001	0.005	0.041	0.0002	0.0000	0.0042	0.11	0.93
746505.30	4307502.10	298.0	1-HR	4TH	142.5	138.9	0.00	0.00	0.00	0.00	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.0000	0.0005	0.02	0.19
746600.00	4307000.00	297.9	1-HR	4TH	141.0	137.5	0.01	0.01	0.01	0.01	18.92	0.009	0.009	0.001	0.000	0.002	0.016	0.0001	0.0000	0.0005	0.04	0.37
746500.00	4307100.00	297.7	1-HR	4TH	141.4	137.9	0.01	0.01	0.01	0.01	17.89	0.008	0.009	0.001	0.000	0.002	0.016	0.0001	0.0000	0.0005	0.04	0.37
746600.00	4307400.00	297.4	1-HR	4TH	140.4	137.0	0.00	0.00	0.00	0.00	19.79	0.000	0.001	0.000	0.000	0.001	0.009	0.0001	0.0000	0.0003	0.02	0.22
746500.00	4307200.00	297.4	1-HR	4TH	139.9	136.5	0.00	0.00	0.00	0.00	20.85	0.001	0.001	0.000	0.000	0.000	0.004	0.0000	0.0000	0.0001	0.01	0.13
746682.50	4307319.80	297.3	1-HR	4TH	140.6	137.2	0.01	0.01	0.01	0.01	18.95	0.030	0.030	0.001	0.001	0.002	0.016	0.0000	0.0000	0.0005	0.05	0.42

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
746600.00	4307300.00	296.9	1-HR	4TH	139.4	136.2	0.01	0.01	0.01	0.01	20.70	0.030	0.030	0.001	0.000	0.002	0.016	0.0000	0.0000	0.0004	0.04	0.40
746684.90	4307272.20	296.9	1-HR	4TH	139.3	136.1	0.01	0.01	0.01	0.01	20.96	0.031	0.031	0.001	0.000	0.002	0.015	0.0000	0.0000	0.0004	0.04	0.40
746704.70	4306891.20	296.8	1-HR	4TH	140.9	137.3	0.01	0.01	0.01	0.01	18.06	0.011	0.011	0.001	0.001	0.003	0.022	0.0001	0.0000	0.0005	0.05	0.50
746680.00	4307367.50	296.7	1-HR	4TH	140.9	137.4	0.00	0.00	0.00	0.00	18.25	0.000	0.000	0.000	0.000	0.001	0.007	0.0001	0.0000	0.0003	0.02	0.19
746700.00	4306900.00	296.5	1-HR	4TH	140.7	137.1	0.01	0.01	0.01	0.01	18.06	0.011	0.011	0.001	0.001	0.003	0.022	0.0001	0.0000	0.0005	0.05	0.50
746526.80	4307639.00	296.4	1-HR	4TH	139.7	136.3	0.01	0.01	0.01	0.01	19.95	0.021	0.021	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0025	0.03	0.32
746677.50	4307415.10	296.3	1-HR	4TH	140.9	137.5	0.00	0.00	0.00	0.00	17.63	0.000	0.000	0.000	0.000	0.001	0.009	0.0001	0.0000	0.0005	0.02	0.23
746513.40	4307538.10	296.2	1-HR	4TH	141.6	138.0	0.00	0.00	0.00	0.00	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.0000	0.0007	0.02	0.19
746600.00	4307200.00	295.9	1-HR	4TH	139.5	136.2	0.00	0.00	0.00	0.00	20.09	0.000	0.000	0.000	0.000	0.000	0.004	0.0000	0.0000	0.0001	0.01	0.12
746702.30	4306938.90	295.9	1-HR	4TH	139.9	136.5	0.01	0.01	0.01	0.01	18.92	0.009	0.009	0.001	0.000	0.002	0.016	0.0001	0.0000	0.0005	0.04	0.37
746600.00	4307100.00	295.7	1-HR	4TH	139.9	136.6	0.00	0.00	0.00	0.00	19.04	0.001	0.002	0.000	0.000	0.001	0.005	0.0000	0.0000	0.0001	0.01	0.15
746689.90	4307177.00	295.5	1-HR	4TH	139.3	136.0	0.00	0.00	0.00	0.00	20.09	0.000	0.000	0.000	0.000	0.000	0.004	0.0000	0.0000	0.0001	0.01	0.12
746687.40	4307224.60	295.5	1-HR	4TH	137.3	134.1	0.02	0.02	0.02	0.02	22.81	0.068	0.068	0.002	0.001	0.006	0.041	0.0002	0.0000	0.0046	0.12	0.96
746600.00	4307500.00	295.4	1-HR	4TH	141.2	137.6	0.00	0.00	0.00	0.00	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.0000	0.0008	0.02	0.19
746519.00	4307568.10	295.4	1-HR	4TH	141.0	137.6	0.00	0.00	0.00	0.00	16.40	0.001	0.001	0.000	0.000	0.001	0.008	0.0001	0.0000	0.0010	0.02	0.23
746524.60	4307598.20	295.3	1-HR	4TH	139.1	135.8	0.01	0.01	0.01	0.01	19.95	0.021	0.021	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0019	0.03	0.32
746692.40	4307129.30	295.3	1-HR	4TH	140.1	136.8	0.00	0.00	0.00	0.00	18.27	0.001	0.001	0.000	0.000	0.001	0.005	0.0000	0.0000	0.0001	0.01	0.15
746699.80	4306986.50	295.3	1-HR	4TH	140.5	137.0	0.01	0.01	0.01	0.01	17.38	0.007	0.007	0.001	0.000	0.002	0.015	0.0001	0.0000	0.0005	0.03	0.34
746529.10	4307679.90	295.1	1-HR	4TH	139.1	135.7	0.01	0.01	0.01	0.01	19.95	0.020	0.021	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0034	0.03	0.32
746675.00	4307462.70	294.9	1-HR	4TH	141.0	137.4	0.00	0.00	0.00	0.00	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.0000	0.0009	0.02	0.19
746600.00	4307600.00	294.8	1-HR	4TH	138.9	135.5	0.01	0.01	0.01	0.01	19.95	0.020	0.021	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0024	0.03	0.32
746697.30	4307034.10	294.5	1-HR	4TH	140.2	136.7	0.01	0.01	0.01	0.01	17.12	0.007	0.008	0.001	0.000	0.002	0.016	0.0001	0.0000	0.0007	0.04	0.37
746531.40	4307720.80	294.2	1-HR	4TH	138.6	135.2	0.01	0.01	0.01	0.01	19.95	0.020	0.021	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0047	0.03	0.32
746672.60	4307510.30	294.2	1-HR	4TH	140.4	137.1	0.00	0.00	0.00	0.00	16.40	0.001	0.001	0.000	0.000	0.001	0.008	0.0001	0.0000	0.0014	0.02	0.23
746667.60	4307605.60	294.0	1-HR	4TH	138.5	135.1	0.01	0.01	0.01	0.01	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0030	0.03	0.33
746694.80	4307081.70	293.9	1-HR	4TH	139.3	136.1	0.00	0.00	0.00	0.00	18.27	0.001	0.001	0.000	0.000	0.001	0.005	0.0000	0.0000	0.0001	0.01	0.15
746670.10	4307558.00	293.7	1-HR	4TH	138.3	135.0	0.01	0.01	0.01	0.01	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0022	0.03	0.33
746532.70	4307767.00	293.4	1-HR	4TH	138.2	134.8	0.01	0.01	0.01	0.01	19.95	0.020	0.021	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0068	0.03	0.32
746666.10	4307650.80	293.2	1-HR	4TH	138.1	134.7	0.01	0.01	0.01	0.01	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0041	0.03	0.33
746600.00	4307700.00	293.0	1-HR	4TH	138.0	134.6	0.01	0.01	0.01	0.01	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0049	0.03	0.32
746675.80	4307652.20	293.0	1-HR	4TH	138.0	134.6	0.01	0.01	0.01	0.01	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0043	0.03	0.33
746534.00	4307813.10	292.9	1-HR	4TH	138.1	134.7	0.01	0.01	0.01	0.01	19.68	0.020	0.020	0.001	0.000	0.002	0.011	0.0001	0.0000	0.0089	0.04	0.36
746531.60	4307894.90	292.8	1-HR	4TH	137.1	133.8	0.01	0.01	0.01	0.01	21.46	0.005	0.005	0.000	0.000	0.001	0.009	0.0002	0.0000	0.0147	0.03	0.29
746532.80	4307854.00	292.7	1-HR	4TH	137.1	133.8	0.01	0.01	0.01	0.01	21.46	0.005	0.005	0.000	0.000	0.001	0.009	0.0002	0.0000	0.0114	0.03	0.29
746529.20	4307976.60	292.2	1-HR	4TH	136.6	133.2	0.01	0.01	0.01	0.01	22.04	0.005	0.005	0.000	0.000	0.001	0.011	0.0004	0.0000	0.0270	0.03	0.31
746530.40	4307935.70	292.2	1-HR	4TH	137.4	133.9	0.01	0.01	0.01	0.01	20.52	0.004	0.005	0.000	0.000	0.001	0.010	0.0003	0.0000	0.0208	0.03	0.31
746717.40	4307653.20	292.2	1-HR	4TH	137.6	134.2	0.01	0.01	0.01	0.01	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0048	0.03	0.33
746673.50	4307698.50	291.9	1-HR	4TH	137.4	134.1	0.01	0.01	0.01	0.01	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0058	0.03	0.32
746600.00	4307800.00	291.7	1-HR	4TH	137.4	134.1	0.01	0.01	0.01	0.01	19.68	0.020	0.020	0.001	0.000	0.002	0.011	0.0001	0.0000	0.0093	0.04	0.36
746600.00	4307900.00	291.5	1-HR	4TH	137.0	133.6	0.01	0.01	0.01	0.01	20.52	0.004	0.004	0.000	0.000	0.001	0.010	0.0003	0.0000	0.0183	0.03	0.31
746671.20	4307744.70	291.5	1-HR	4TH	137.3	134.0	0.01	0.01	0.01	0.01	19.68	0.020	0.020	0.001	0.000	0.002	0.011	0.0001	0.0000	0.0074	0.04	0.37
746668.80	4307790.90	291.0	1-HR	4TH	136.0	132.7	0.01	0.01	0.01	0.01	21.76	0.022	0.023	0.001	0.000	0.002	0.015	0.0002	0.0000	0.0116	0.05	0.47
746525.40	4308157.80	291.0	1-HR	4TH	136.8	133.6	0.00	0.00	0.00	0.00	20.33	0.002	0.002	0.000	0.000	0.001	0.007	0.0003	0.0000	0.0313	0.02	0.22
746564.00	4308183.00	291.0	1-HR	4TH	137.2	133.8	0.00	0.00	0.00	0.00	19.60	0.002	0.003	0.000	0.000	0.001	0.008	0.0003	0.0000	0.0250	0.02	0.25
746528.00	4308017.50	290.8	1-HR	4TH	135.9	132.4	0.01	0.01	0.01	0.01	22.04	0.005	0.005	0.000	0.000	0.001	0.011	0.0004	0.0000	0.0290	0.03	0.31
746759.10	4307654.20	290.6	1-HR	4TH	136.8	133.4	0.01	0.01	0.01	0.01	19.95	0.019	0.020	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0053	0.03	0.33
746665.10	4307883.80	290.4	1-HR	4TH	135.9	132.6	0.01	0.01	0.01	0.01	21.46	0.004	0.004	0.001	0.000	0.001	0.009	0.0002	0.0000	0.0155	0.03	0.30
746666.50	4307837.20	290.3	1-HR	4TH	136.9	133.6	0.01	0.01	0.01	0.01	19.42	0.004	0.004	0.001	0.000	0.001	0.009	0.0002	0.0000	0.0127	0.02	0.27
746597.40	4308185.60	290.0	1-HR	4TH	137.1	133.6	0.01	0.01	0.01	0.00	18.93	0.002	0.003	0.000	0.000	0.001	0.009	0.0004	0.0000	0.0238	0.02	0.28
746667.30	4307914.20	289.8	1-HR	4TH	135.9	132.8	0.01	0.01	0.01	0.01	20.61	0.004	0.004	0.001	0.000	0.001	0.011	0.0002	0.0000	0.0154	0.03	0.35
746798.40	4307655.90	289.7	1-HR	4TH	136.3	133.0	0.01	0.01	0.01	0.01	19.95	0.019	0.020	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0058	0.03	0.33

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
746525.10	4308130.40	289.7	1-HR	4TH	136.1	133.0	0.00	0.00	0.00	0.00	20.33	0.002	0.002	0.000	0.000	0.001	0.007	0.0002	0.0000	0.0307	0.02	0.22
746669.40	4307944.60	289.5	1-HR	4TH	135.2	131.8	0.01	0.01	0.01	0.01	22.04	0.004	0.004	0.001	0.000	0.001	0.011	0.0004	0.0000	0.0243	0.03	0.32
746600.00	4308000.00	289.3	1-HR	4TH	135.2	131.7	0.01	0.01	0.01	0.01	22.04	0.004	0.005	0.000	0.000	0.001	0.011	0.0004	0.0000	0.0270	0.03	0.32
746526.40	4308060.20	289.3	1-HR	4TH	135.2	131.7	0.01	0.01	0.01	0.01	22.04	0.005	0.005	0.000	0.000	0.001	0.011	0.0004	0.0000	0.0297	0.03	0.31
746524.80	4308103.00	289.0	1-HR	4TH	134.8	131.7	0.00	0.00	0.00	0.00	22.13	0.005	0.005	0.000	0.000	0.001	0.008	0.0002	0.0000	0.0265	0.02	0.26
746837.80	4307657.70	288.9	1-HR	4TH	135.9	132.6	0.01	0.01	0.01	0.01	19.95	0.019	0.019	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0064	0.03	0.33
746629.20	4308187.30	288.9	1-HR	4TH	136.5	133.0	0.01	0.01	0.01	0.01	18.93	0.002	0.002	0.000	0.000	0.001	0.009	0.0004	0.0000	0.0225	0.02	0.28
746667.00	4308131.90	288.4	1-HR	4TH	135.4	132.3	0.00	0.00	0.00	0.00	20.33	0.001	0.002	0.000	0.000	0.001	0.007	0.0003	0.0000	0.0260	0.02	0.22
746668.50	4307981.80	288.3	1-HR	4TH	134.7	131.2	0.01	0.01	0.01	0.01	22.04	0.004	0.004	0.001	0.000	0.001	0.011	0.0004	0.0000	0.0255	0.03	0.32
746865.70	4307658.00	288.3	1-HR	4TH	135.6	132.3	0.01	0.01	0.01	0.01	19.95	0.018	0.019	0.001	0.000	0.001	0.010	0.0001	0.0000	0.0067	0.03	0.33
746660.90	4308189.00	287.9	1-HR	4TH	136.0	132.5	0.01	0.01	0.01	0.01	18.93	0.002	0.002	0.000	0.000	0.001	0.009	0.0004	0.0000	0.0213	0.02	0.28
746694.20	4308129.80	287.7	1-HR	4TH	135.6	132.3	0.00	0.00	0.00	0.00	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.0000	0.0219	0.02	0.25
746927.80	4307661.30	287.7	1-HR	4TH	135.4	132.1	0.01	0.01	0.01	0.01	19.68	0.018	0.018	0.001	0.001	0.002	0.012	0.0001	0.0000	0.0071	0.04	0.37
746893.70	4307658.40	287.7	1-HR	4TH	135.3	132.0	0.01	0.01	0.01	0.01	19.95	0.018	0.019	0.001	0.001	0.001	0.010	0.0001	0.0000	0.0071	0.03	0.33
747014.20	4307598.90	287.5	1-HR	4TH	135.2	131.9	0.01	0.01	0.01	0.01	19.95	0.017	0.018	0.001	0.001	0.001	0.010	0.0001	0.0000	0.0063	0.03	0.33
746600.00	4308100.00	287.5	1-HR	4TH	134.1	130.9	0.01	0.01	0.01	0.01	22.13	0.004	0.005	0.000	0.000	0.001	0.008	0.0002	0.0000	0.0243	0.02	0.26
746962.00	4307664.10	287.4	1-HR	4TH	135.3	132.0	0.01	0.01	0.01	0.01	19.68	0.017	0.018	0.001	0.001	0.002	0.012	0.0001	0.0000	0.0077	0.04	0.38
746667.50	4308019.00	287.1	1-HR	4TH	134.0	130.6	0.01	0.01	0.01	0.01	22.04	0.004	0.004	0.001	0.000	0.001	0.011	0.0004	0.0000	0.0258	0.03	0.32
747055.10	4307583.00	286.9	1-HR	4TH	134.9	131.6	0.01	0.01	0.01	0.01	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.0000	0.0062	0.03	0.33
746724.80	4308127.60	286.8	1-HR	4TH	135.1	131.8	0.00	0.00	0.00	0.00	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.0000	0.0210	0.02	0.25
747023.80	4307624.10	286.8	1-HR	4TH	134.9	131.5	0.01	0.01	0.01	0.01	19.95	0.017	0.017	0.001	0.001	0.001	0.010	0.0001	0.0000	0.0073	0.03	0.33
746667.20	4308094.30	286.8	1-HR	4TH	134.0	130.9	0.01	0.01	0.01	0.01	21.55	0.004	0.004	0.000	0.000	0.001	0.009	0.0002	0.0000	0.0249	0.02	0.28
746996.20	4307667.00	286.8	1-HR	4TH	134.9	131.6	0.01	0.01	0.01	0.01	19.68	0.017	0.017	0.001	0.001	0.002	0.012	0.0001	0.0000	0.0082	0.04	0.38
747096.10	4307567.20	286.5	1-HR	4TH	134.7	131.4	0.01	0.01	0.01	0.01	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.0000	0.0061	0.03	0.34
746710.10	4308187.70	286.4	1-HR	4TH	135.3	131.8	0.01	0.01	0.01	0.01	18.93	0.002	0.002	0.000	0.000	0.001	0.009	0.0004	0.0000	0.0198	0.02	0.28
747057.80	4307611.40	286.4	1-HR	4TH	134.6	131.3	0.01	0.01	0.01	0.01	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.0000	0.0072	0.03	0.33
746667.30	4308056.60	286.2	1-HR	4TH	133.5	130.3	0.01	0.01	0.01	0.01	22.13	0.004	0.004	0.000	0.000	0.001	0.008	0.0002	0.0000	0.0219	0.02	0.26
746755.50	4308125.30	286.1	1-HR	4TH	134.7	131.4	0.01	0.01	0.01	0.01	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.0000	0.0202	0.02	0.25
747091.80	4307598.70	286.0	1-HR	4TH	134.4	131.1	0.01	0.01	0.01	0.01	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.0000	0.0071	0.03	0.34
747137.10	4307551.30	286.0	1-HR	4TH	134.4	131.1	0.01	0.01	0.01	0.01	19.95	0.015	0.016	0.002	0.001	0.002	0.010	0.0001	0.0000	0.0060	0.03	0.34
747035.80	4307671.60	285.7	1-HR	4TH	134.0	130.7	0.01	0.01	0.01	0.01	20.50	0.016	0.017	0.001	0.001	0.002	0.012	0.0002	0.0000	0.0106	0.04	0.41
747125.80	4307586.00	285.7	1-HR	4TH	134.3	131.0	0.01	0.01	0.01	0.01	19.95	0.015	0.016	0.002	0.001	0.001	0.010	0.0001	0.0000	0.0070	0.03	0.34
747178.00	4307535.50	285.4	1-HR	4TH	134.1	130.9	0.02	0.02	0.02	0.02	19.95	0.014	0.016	0.002	0.001	0.002	0.010	0.0001	0.0000	0.0059	0.03	0.34
746759.20	4308186.50	285.3	1-HR	4TH	134.7	131.4	0.01	0.01	0.01	0.01	18.86	0.003	0.003	0.001	0.000	0.001	0.010	0.0003	0.0000	0.0244	0.03	0.30
747219.00	4307519.60	285.0	1-HR	4TH	133.9	130.6	0.02	0.02	0.02	0.02	19.95	0.014	0.015	0.002	0.001	0.002	0.010	0.0001	0.0000	0.0058	0.03	0.34
746800.70	4308123.30	284.9	1-HR	4TH	134.1	130.8	0.01	0.01	0.01	0.01	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.0000	0.0191	0.02	0.25
747259.40	4307457.10	284.8	1-HR	4TH	133.8	130.6	0.02	0.02	0.02	0.02	19.95	0.014	0.015	0.002	0.001	0.002	0.010	0.0001	0.0000	0.0046	0.03	0.34
746808.40	4308185.20	284.7	1-HR	4TH	133.9	130.9	0.01	0.01	0.01	0.01	19.30	0.006	0.007	0.001	0.000	0.002	0.014	0.0002	0.0000	0.0249	0.04	0.41
747069.90	4307682.90	284.5	1-HR	4TH	133.4	130.1	0.01	0.01	0.01	0.01	20.50	0.015	0.016	0.001	0.001	0.002	0.012	0.0002	0.0000	0.0113	0.04	0.41
747260.00	4307503.80	284.4	1-HR	4TH	133.6	130.4	0.02	0.02	0.02	0.02	19.95	0.013	0.014	0.002	0.001	0.002	0.010	0.0001	0.0000	0.0057	0.03	0.34
746857.60	4308184.00	284.3	1-HR	4TH	133.7	130.7	0.01	0.01	0.01	0.01	19.30	0.006	0.006	0.001	0.001	0.002	0.014	0.0002	0.0000	0.0238	0.04	0.42
747143.30	4307629.30	284.2	1-HR	4TH	133.2	129.9	0.02	0.02	0.02	0.02	20.50	0.014	0.015	0.002	0.001	0.002	0.013	0.0002	0.0000	0.0100	0.04	0.41
747296.30	4307438.80	284.2	1-HR	4TH	133.5	130.2	0.02	0.02	0.02	0.02	19.95	0.013	0.015	0.002	0.001	0.002	0.010	0.0001	0.0000	0.0044	0.03	0.34
746906.80	4308182.70	283.9	1-HR	4TH	133.5	130.5	0.01	0.01	0.01	0.01	19.30	0.005	0.006	0.001	0.001	0.002	0.014	0.0002	0.0000	0.0228	0.04	0.42
747179.00	4307615.80	283.8	1-HR	4TH	133.0	129.7	0.02	0.02	0.02	0.02	20.50	0.013	0.015	0.002	0.001	0.002	0.013	0.0002	0.0000	0.0098	0.04	0.41
747200.00	4307600.00	283.8	1-HR	4TH	133.0	129.7	0.02	0.02	0.02	0.02	20.50	0.013	0.014	0.002	0.001	0.002	0.013	0.0002	0.0000	0.0095	0.04	0.41
747333.20	4307420.40	283.7	1-HR	4TH	133.2	130.0	0.02	0.02	0.02	0.02	19.95	0.013	0.014	0.002	0.001	0.002	0.010	0.0001	0.0000	0.0043	0.03	0.34
747300.00	4307500.00	283.6	1-HR	4TH	133.2	130.0	0.02	0.02	0.02	0.02	19.95	0.012	0.014	0.002	0.001	0.002	0.010	0.0001	0.0000	0.0059	0.03	0.34
746845.90	4308121.30	283.6	1-HR	4TH	133.9	130.4	0.01	0.01	0.01	0.01	18.93	0.001	0.002	0.000	0.000	0.001	0.009	0.0003	0.0000	0.0196	0.02	0.29
747251.20	4307552.80	283.5	1-HR	4TH	133.2	129.9	0.02	0.02	0.02	0.02	19.95	0.012	0.014	0.002	0.001	0.002	0.010	0.0001	0.0000	0.0071	0.03	0.34
746955.90	4308181.40	283.5	1-HR	4TH	133.3	130.3	0.01	0.01	0.01	0.01	19.30	0.005	0.005	0.001	0.001	0.002	0.014	0.0003	0.0000	0.0219	0.05	0.42

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
747214.60	4307602.20	283.3	1-HR	4TH	132.8	129.5	0.02	0.02	0.02	0.02	20.50	0.013	0.014	0.002	0.001	0.002	0.013	0.0002	0.0000	0.0097	0.04	0.41
747104.00	4307694.10	283.3	1-HR	4TH	132.1	128.8	0.02	0.02	0.02	0.02	21.76	0.015	0.017	0.002	0.001	0.002	0.015	0.0002	0.0000	0.0115	0.05	0.49
747370.10	4307402.10	283.2	1-HR	4TH	132.9	129.6	0.02	0.02	0.02	0.02	20.26	0.012	0.014	0.002	0.002	0.002	0.013	0.0002	0.0000	0.0069	0.04	0.39
747005.10	4308180.20	283.0	1-HR	4TH	133.1	130.1	0.01	0.01	0.01	0.01	19.30	0.004	0.005	0.001	0.001	0.002	0.014	0.0003	0.0000	0.0211	0.05	0.42
747407.00	4307383.70	283.0	1-HR	4TH	132.7	129.4	0.02	0.02	0.02	0.02	20.26	0.012	0.013	0.002	0.002	0.002	0.013	0.0002	0.0000	0.0068	0.04	0.39
747250.30	4307588.60	282.8	1-HR	4TH	132.5	129.2	0.02	0.02	0.02	0.02	20.50	0.012	0.013	0.002	0.001	0.002	0.013	0.0002	0.0000	0.0095	0.04	0.42
747400.00	4307400.00	282.7	1-HR	4TH	132.7	129.5	0.02	0.02	0.02	0.02	19.95	0.012	0.013	0.002	0.002	0.002	0.010	0.0001	0.0000	0.0043	0.03	0.35
748003.20	4307987.20	282.7	1-HR	4TH	52.5	51.2	38.21	39.44	40.80	41.81	16.44	0.026	0.051	0.070	1.364	0.020	0.022	0.0002	0.0002	0.0048	0.08	0.59
747128.30	4307700.20	282.7	1-HR	4TH	131.7	128.5	0.02	0.02	0.02	0.02	21.76	0.014	0.016	0.002	0.001	0.002	0.015	0.0002	0.0000	0.0118	0.05	0.49
747054.30	4308178.90	282.6	1-HR	4TH	132.9	129.8	0.01	0.01	0.01	0.01	19.30	0.004	0.005	0.001	0.001	0.002	0.014	0.0003	0.0000	0.0203	0.05	0.42
747249.30	4307599.10	282.5	1-HR	4TH	132.4	129.1	0.02	0.02	0.02	0.02	20.50	0.012	0.013	0.002	0.001	0.002	0.013	0.0002	0.0000	0.0098	0.04	0.42
747451.40	4307367.90	282.5	1-HR	4TH	132.5	129.2	0.02	0.02	0.02	0.02	20.26	0.012	0.013	0.002	0.002	0.002	0.013	0.0002	0.0000	0.0068	0.04	0.39
746891.80	4308119.40	282.2	1-HR	4TH	133.2	129.8	0.01	0.01	0.01	0.01	18.93	0.001	0.001	0.001	0.000	0.001	0.009	0.0003	0.0000	0.0187	0.02	0.29
747154.10	4307712.20	282.2	1-HR	4TH	132.6	129.4	0.02	0.02	0.02	0.02	19.42	0.014	0.015	0.002	0.001	0.002	0.015	0.0002	0.0000	0.0113	0.05	0.50
747300.70	4307555.10	282.0	1-HR	4TH	132.5	129.3	0.02	0.02	0.02	0.02	19.68	0.011	0.012	0.002	0.002	0.002	0.012	0.0001	0.0000	0.0071	0.04	0.39
747495.70	4307352.00	281.9	1-HR	4TH	132.2	128.9	0.02	0.02	0.02	0.02	20.26	0.011	0.012	0.002	0.002	0.002	0.013	0.0002	0.0000	0.0068	0.04	0.39
747103.50	4308177.70	281.8	1-HR	4TH	133.2	130.0	0.01	0.01	0.01	0.01	18.13	0.004	0.004	0.001	0.001	0.002	0.014	0.0003	0.0000	0.0166	0.05	0.42
747179.80	4307724.30	281.8	1-HR	4TH	132.4	129.3	0.02	0.02	0.02	0.02	19.42	0.013	0.014	0.002	0.001	0.002	0.015	0.0002	0.0000	0.0118	0.05	0.50
747400.00	4307500.00	281.8	1-HR	4TH	132.3	129.0	0.02	0.02	0.02	0.02	19.95	0.010	0.011	0.003	0.002	0.002	0.010	0.0001	0.0000	0.0067	0.04	0.34
747248.10	4307630.90	281.7	1-HR	4TH	131.9	128.6	0.02	0.02	0.02	0.02	20.50	0.011	0.013	0.002	0.001	0.002	0.013	0.0002	0.0000	0.0108	0.04	0.41
747540.10	4307336.10	281.4	1-HR	4TH	131.9	128.7	0.02	0.02	0.02	0.02	20.26	0.011	0.012	0.002	0.002	0.002	0.013	0.0002	0.0000	0.0068	0.04	0.39
747204.60	4307740.00	281.4	1-HR	4TH	132.4	129.2	0.01	0.01	0.01	0.01	19.42	0.002	0.002	0.001	0.001	0.001	0.009	0.0002	0.0000	0.0122	0.03	0.28
747247.40	4307645.40	281.3	1-HR	4TH	131.7	128.4	0.02	0.02	0.02	0.02	20.50	0.011	0.013	0.002	0.001	0.002	0.013	0.0002	0.0000	0.0112	0.04	0.41
746937.70	4308117.50	281.1	1-HR	4TH	132.6	129.2	0.01	0.01	0.01	0.01	18.93	0.001	0.001	0.001	0.000	0.001	0.009	0.0003	0.0000	0.0179	0.02	0.29
747500.00	4307400.00	281.1	1-HR	4TH	131.9	128.7	0.02	0.02	0.02	0.02	19.95	0.010	0.011	0.003	0.003	0.002	0.010	0.0001	0.0000	0.0050	0.04	0.35
747152.60	4308176.40	281.0	1-HR	4TH	132.7	129.6	0.02	0.02	0.02	0.02	18.13	0.003	0.004	0.001	0.001	0.002	0.014	0.0003	0.0000	0.0160	0.05	0.42
747584.50	4307320.20	281.0	1-HR	4TH	131.7	128.4	0.02	0.02	0.02	0.02	20.26	0.011	0.012	0.002	0.003	0.002	0.013	0.0002	0.0000	0.0069	0.04	0.40
747350.30	4307557.40	280.9	1-HR	4TH	131.5	128.3	0.02	0.02	0.02	0.02	20.50	0.010	0.011	0.003	0.002	0.002	0.013	0.0002	0.0000	0.0093	0.04	0.42
747243.80	4307715.50	280.8	1-HR	4TH	131.9	128.8	0.03	0.02	0.02	0.02	19.42	0.011	0.013	0.003	0.002	0.002	0.015	0.0002	0.0000	0.0118	0.05	0.50
747229.40	4307755.70	280.7	1-HR	4TH	132.1	128.9	0.02	0.02	0.02	0.02	19.42	0.002	0.002	0.001	0.001	0.001	0.009	0.0002	0.0000	0.0127	0.03	0.28
747243.70	4307738.00	280.7	1-HR	4TH	132.0	128.8	0.02	0.02	0.02	0.02	19.42	0.001	0.002	0.001	0.001	0.001	0.009	0.0002	0.0000	0.0123	0.03	0.28
747245.60	4307691.70	280.7	1-HR	4TH	131.8	128.7	0.02	0.02	0.02	0.02	19.42	0.011	0.013	0.003	0.002	0.002	0.015	0.0002	0.0000	0.0111	0.05	0.50
747246.00	4307673.20	280.6	1-HR	4TH	130.7	127.5	0.02	0.02	0.02	0.02	21.76	0.011	0.013	0.003	0.002	0.002	0.015	0.0002	0.0000	0.0116	0.05	0.50
747241.70	4307757.80	280.5	1-HR	4TH	131.9	128.7	0.02	0.02	0.02	0.02	19.42	0.001	0.002	0.001	0.001	0.001	0.009	0.0002	0.0000	0.0128	0.03	0.28
747628.80	4307304.30	280.3	1-HR	4TH	131.4	128.1	0.02	0.02	0.02	0.02	20.26	0.011	0.011	0.002	0.003	0.002	0.013	0.0002	0.0000	0.0069	0.04	0.40
747241.80	4307784.30	280.2	1-HR	4TH	131.8	128.6	0.02	0.02	0.02	0.02	19.42	0.001	0.002	0.001	0.001	0.001	0.009	0.0002	0.0000	0.0135	0.03	0.28
746983.50	4308115.60	280.1	1-HR	4TH	132.7	129.5	0.01	0.01	0.01	0.01	17.62	0.001	0.001	0.001	0.000	0.001	0.008	0.0003	0.0000	0.0187	0.02	0.24
747201.80	4308175.20	280.0	1-HR	4TH	131.4	128.2	0.03	0.03	0.03	0.03	19.41	0.022	0.025	0.002	0.001	0.003	0.022	0.0003	0.0000	0.0157	0.09	0.65
747227.90	4307799.60	279.9	1-HR	4TH	131.4	128.1	0.02	0.02	0.02	0.02	20.00	0.002	0.002	0.001	0.001	0.001	0.010	0.0004	0.0000	0.0178	0.03	0.31
747673.20	4307288.40	279.8	1-HR	4TH	131.1	127.9	0.02	0.02	0.02	0.02	20.26	0.011	0.011	0.002	0.003	0.002	0.013	0.0002	0.0000	0.0069	0.04	0.40
747399.90	4307559.60	279.8	1-HR	4TH	131.0	127.7	0.03	0.03	0.03	0.03	20.50	0.009	0.010	0.003	0.003	0.002	0.013	0.0002	0.0000	0.0096	0.04	0.42
747500.00	4307500.00	279.7	1-HR	4TH	130.9	127.7	0.03	0.03	0.03	0.03	20.50	0.008	0.010	0.003	0.004	0.002	0.013	0.0002	0.0000	0.0087	0.04	0.42
747029.40	4308113.70	279.5	1-HR	4TH	132.4	129.2	0.01	0.01	0.01	0.01	17.62	0.001	0.001	0.001	0.000	0.001	0.008	0.0003	0.0000	0.0180	0.02	0.24
747600.00	4307400.00	279.4	1-HR	4TH	131.0	127.8	0.03	0.03	0.03	0.03	19.95	0.009	0.010	0.003	0.004	0.002	0.010	0.0001	0.0000	0.0057	0.04	0.35
747717.50	4307272.50	279.2	1-HR	4TH	130.8	127.6	0.02	0.02	0.02	0.02	20.26	0.011	0.011	0.002	0.003	0.002	0.013	0.0002	0.0000	0.0069	0.04	0.40
747251.00	4308173.90	279.2	1-HR	4TH	131.0	127.8	0.03	0.03	0.03	0.03	19.41	0.020	0.023	0.002	0.001	0.003	0.022	0.0003	0.0000	0.0152	0.09	0.65
747700.00	4307300.00	279.1	1-HR	4TH	130.7	127.5	0.02	0.02	0.02	0.02	20.26	0.010	0.011	0.002	0.003	0.002	0.013	0.0002	0.0000	0.0075	0.04	0.40
747075.30	4308111.90	279.0	1-HR	4TH	132.2	128.9	0.01	0.01	0.01	0.01	17.62	0.001	0.001	0.001	0.000	0.001	0.008	0.0003	0.0000	0.0173	0.02	0.24
747157.10	4308039.20	278.8	1-HR	4TH	131.0	127.8	0.01	0.01	0.01	0.01	19.60	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.0000	0.0150	0.02	0.25
747158.50	4308003.70	278.7	1-HR	4TH	130.5	127.5	0.01	0.01	0.01	0.01	20.33	0.001	0.001	0.001	0.001	0.001	0.007	0.0002	0.0000	0.0176	0.02	0.23
747449.50	4307561.90	278.7	1-HR	4TH	130.4	127.2	0.03	0.03	0.03	0.03	20.50	0.008	0.009	0.003	0.003	0.002	0.013	0.0002	0.0000	0.0100	0.04	0.42

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
747761.90	4307256.60	278.7	1-HR	4TH	130.5	127.3	0.02	0.02	0.02	0.02	20.26	0.011	0.011	0.002	0.003	0.002	0.013	0.0002	0.0000	0.0069	0.04	0.40
747121.20	4308110.00	278.5	1-HR	4TH	131.5	128.5	0.01	0.01	0.01	0.01	18.06	0.003	0.003	0.001	0.001	0.002	0.011	0.0002	0.0000	0.0180	0.03	0.36
747239.90	4307830.60	278.5	1-HR	4TH	129.6	126.3	0.02	0.02	0.02	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.0000	0.0179	0.03	0.33
747226.40	4307843.60	278.3	1-HR	4TH	129.6	126.3	0.02	0.02	0.02	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.0000	0.0180	0.03	0.33
747200.00	4308000.00	278.2	1-HR	4TH	130.3	127.3	0.01	0.01	0.01	0.01	20.33	0.001	0.001	0.001	0.001	0.001	0.007	0.0002	0.0000	0.0172	0.02	0.23
747806.30	4307240.70	278.1	1-HR	4TH	130.3	127.0	0.02	0.02	0.02	0.02	20.26	0.011	0.011	0.002	0.003	0.002	0.013	0.0002	0.0000	0.0069	0.04	0.40
747167.00	4308108.10	278.1	1-HR	4TH	130.6	127.6	0.02	0.02	0.02	0.02	19.30	0.003	0.003	0.001	0.001	0.002	0.014	0.0002	0.0000	0.0208	0.05	0.43
747181.70	4308050.60	277.9	1-HR	4TH	131.0	127.6	0.01	0.01	0.01	0.01	18.93	0.001	0.001	0.001	0.001	0.001	0.009	0.0003	0.0000	0.0162	0.03	0.29
747300.10	4308172.60	277.8	1-HR	4TH	130.9	127.5	0.03	0.03	0.03	0.03	18.53	0.016	0.019	0.002	0.001	0.003	0.020	0.0004	0.0000	0.0130	0.08	0.58
747212.90	4308106.20	277.7	1-HR	4TH	130.4	127.4	0.02	0.02	0.02	0.02	19.30	0.003	0.003	0.001	0.001	0.002	0.014	0.0002	0.0000	0.0203	0.05	0.43
747228.70	4308108.50	277.7	1-HR	4TH	130.4	127.4	0.02	0.02	0.02	0.02	19.30	0.002	0.003	0.001	0.001	0.002	0.014	0.0002	0.0000	0.0201	0.05	0.43
747600.00	4307500.00	277.6	1-HR	4TH	129.8	126.6	0.04	0.04	0.04	0.04	20.50	0.007	0.008	0.003	0.007	0.002	0.013	0.0002	0.0000	0.0093	0.04	0.43
747700.00	4307400.00	277.6	1-HR	4TH	130.1	126.9	0.03	0.03	0.03	0.03	19.95	0.008	0.009	0.002	0.006	0.002	0.010	0.0001	0.0000	0.0063	0.04	0.35
747850.60	4307224.80	277.6	1-HR	4TH	130.9	127.8	0.02	0.02	0.02	0.02	18.15	0.012	0.012	0.001	0.003	0.002	0.015	0.0002	0.0000	0.0063	0.04	0.46
747499.00	4307564.20	277.6	1-HR	4TH	129.8	126.6	0.03	0.03	0.03	0.03	20.50	0.007	0.008	0.004	0.004	0.002	0.013	0.0002	0.0000	0.0103	0.04	0.42
747232.50	4308015.90	277.4	1-HR	4TH	130.3	127.2	0.01	0.01	0.01	0.01	19.60	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.0000	0.0144	0.02	0.25
747159.80	4307968.20	277.4	1-HR	4TH	129.2	126.3	0.01	0.01	0.01	0.01	21.55	0.001	0.002	0.001	0.001	0.001	0.009	0.0002	0.0000	0.0169	0.02	0.28
747253.40	4308108.50	277.4	1-HR	4TH	130.2	127.3	0.02	0.02	0.02	0.02	19.30	0.002	0.003	0.001	0.001	0.002	0.014	0.0002	0.0000	0.0197	0.05	0.43
747200.50	4308053.00	277.4	1-HR	4TH	131.3	128.1	0.01	0.01	0.01	0.01	17.62	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.0000	0.0173	0.02	0.24
747800.00	4307300.00	277.2	1-HR	4TH	129.8	126.6	0.03	0.03	0.03	0.03	20.26	0.010	0.010	0.002	0.004	0.002	0.013	0.0003	0.0000	0.0084	0.04	0.40
747216.30	4308054.20	277.0	1-HR	4TH	131.1	127.9	0.01	0.01	0.01	0.01	17.62	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.0000	0.0170	0.02	0.24
747234.30	4307969.60	277.0	1-HR	4TH	129.7	126.7	0.01	0.01	0.01	0.01	20.33	0.001	0.001	0.001	0.001	0.001	0.007	0.0002	0.0000	0.0168	0.02	0.23
747298.90	4308105.20	277.0	1-HR	4TH	130.0	127.1	0.02	0.02	0.02	0.02	19.30	0.002	0.002	0.001	0.001	0.002	0.014	0.0003	0.0000	0.0193	0.05	0.43
747895.00	4307209.00	276.9	1-HR	4TH	130.6	127.5	0.02	0.02	0.02	0.02	18.15	0.012	0.012	0.001	0.002	0.002	0.015	0.0002	0.0000	0.0063	0.04	0.46
747161.20	4307932.70	276.9	1-HR	4TH	128.7	125.7	0.01	0.01	0.01	0.01	22.13	0.002	0.002	0.001	0.001	0.001	0.008	0.0002	0.0000	0.0146	0.02	0.27
747238.10	4307876.90	276.8	1-HR	4TH	128.8	125.5	0.02	0.02	0.02	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.0000	0.0177	0.03	0.33
747224.80	4307887.50	276.7	1-HR	4TH	128.8	125.5	0.02	0.02	0.02	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.0000	0.0178	0.03	0.33
747214.60	4308080.20	276.7	1-HR	4TH	131.0	127.8	0.01	0.01	0.01	0.01	17.62	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.0000	0.0163	0.02	0.24
747344.30	4308102.00	276.7	1-HR	4TH	129.9	126.9	0.02	0.02	0.02	0.02	19.30	0.002	0.002	0.001	0.001	0.002	0.014	0.0003	0.0000	0.0189	0.05	0.43
747230.60	4308062.20	276.5	1-HR	4TH	130.9	127.7	0.01	0.01	0.01	0.01	17.62	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.0000	0.0166	0.02	0.24
747185.00	4307931.00	276.5	1-HR	4TH	128.5	125.5	0.01	0.01	0.01	0.01	22.13	0.002	0.002	0.001	0.001	0.001	0.008	0.0002	0.0000	0.0145	0.02	0.27
748000.00	4308000.00	276.4	1-HR	4TH	24.7	24.1	50.05	51.84	53.58	54.81	14.66	0.035	0.070	0.117	1.692	0.027	0.024	0.0001	0.0003	0.0039	0.09	0.65
747548.60	4307566.50	276.3	1-HR	4TH	129.2	126.0	0.04	0.04	0.04	0.04	20.50	0.006	0.007	0.004	0.006	0.002	0.013	0.0002	0.0000	0.0105	0.04	0.42
747937.00	4307210.10	276.2	1-HR	4TH	129.3	126.1	0.02	0.02	0.02	0.02	20.26	0.012	0.012	0.002	0.002	0.002	0.013	0.0002	0.0000	0.0073	0.04	0.41
747349.30	4308171.40	276.1	1-HR	4TH	129.9	126.5	0.02	0.02	0.02	0.02	19.37	0.001	0.001	0.001	0.001	0.002	0.010	0.0004	0.0000	0.0100	0.04	0.31
747223.30	4307931.40	276.0	1-HR	4TH	128.3	125.2	0.01	0.01	0.01	0.01	22.13	0.002	0.002	0.001	0.001	0.001	0.008	0.0002	0.0000	0.0142	0.02	0.27
747389.70	4308098.80	275.9	1-HR	4TH	130.1	127.0	0.03	0.03	0.03	0.03	18.13	0.002	0.002	0.002	0.001	0.002	0.014	0.0003	0.0000	0.0156	0.05	0.43
747400.00	4308100.00	275.9	1-HR	4TH	130.1	127.0	0.03	0.03	0.03	0.03	18.13	0.002	0.002	0.002	0.001	0.002	0.014	0.0003	0.0000	0.0155	0.05	0.43
747236.20	4307923.20	275.7	1-HR	4TH	128.1	125.1	0.01	0.01	0.01	0.01	22.13	0.002	0.002	0.001	0.001	0.001	0.008	0.0002	0.0000	0.0141	0.02	0.27
747800.00	4307400.00	275.5	1-HR	4TH	128.7	125.5	0.04	0.04	0.04	0.04	20.77	0.008	0.008	0.003	0.007	0.002	0.011	0.0002	0.0000	0.0084	0.04	0.39
747700.00	4307500.00	275.4	1-HR	4TH	128.7	125.5	0.05	0.05	0.05	0.05	20.50	0.006	0.007	0.003	0.013	0.002	0.013	0.0002	0.0000	0.0097	0.04	0.43
747978.90	4307211.30	275.3	1-HR	4TH	128.8	125.6	0.02	0.02	0.02	0.02	20.26	0.012	0.012	0.002	0.002	0.002	0.013	0.0002	0.0000	0.0077	0.04	0.41
747432.00	4308092.60	275.3	1-HR	4TH	129.8	126.7	0.03	0.03	0.03	0.03	18.13	0.002	0.002	0.002	0.002	0.002	0.014	0.0003	0.0000	0.0154	0.05	0.43
747900.00	4307300.00	275.3	1-HR	4TH	129.0	125.8	0.03	0.03	0.03	0.03	19.95	0.010	0.010	0.003	0.004	0.002	0.011	0.0001	0.0000	0.0055	0.04	0.36
747598.20	4307568.80	275.2	1-HR	4TH	128.6	125.4	0.05	0.04	0.04	0.04	20.50	0.006	0.007	0.004	0.009	0.002	0.013	0.0002	0.0000	0.0108	0.04	0.43
747474.40	4308086.40	275.2	1-HR	4TH	128.9	125.8	0.05	0.05	0.05	0.05	19.41	0.008	0.010	0.003	0.002	0.004	0.023	0.0003	0.0000	0.0151	0.09	0.67
747500.00	4308100.00	274.7	1-HR	4TH	128.7	125.6	0.05	0.05	0.05	0.05	19.41	0.007	0.009	0.003	0.002	0.004	0.022	0.0003	0.0000	0.0147	0.09	0.66
747398.50	4308170.10	274.5	1-HR	4TH	129.0	125.6	0.02	0.02	0.02	0.02	19.37	0.001	0.001	0.001	0.001	0.002	0.010	0.0004	0.0000	0.0096	0.04	0.31
748020.90	4307212.40	274.4	1-HR	4TH	128.4	125.2	0.02	0.02	0.02	0.02	20.26	0.012	0.012	0.003	0.002	0.002	0.013	0.0002	0.0000	0.0080	0.04	0.41
747647.70	4307571.10	274.2	1-HR	4TH	128.1	124.9	0.05	0.05	0.05	0.05	20.50	0.005	0.006	0.003	0.015	0.002	0.013	0.0002	0.0000	0.0109	0.04	0.43
747522.80	4308077.70	274.0	1-HR	4TH	128.3	125.2	0.05	0.05	0.05	0.05	19.41	0.006	0.008	0.003	0.003	0.004	0.023	0.0003	0.0000	0.0148	0.09	0.68

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
747800.00	4307500.00	273.6	1-HR	4TH	127.8	124.6	0.05	0.05	0.05	0.05	20.50	0.005	0.006	0.010	0.010	0.002	0.013	0.0002	0.0000	0.0101	0.04	0.43
748536.40	4307703.10	273.6	1-HR	4TH	118.4	115.6	4.38	4.44	4.41	4.27	20.89	0.320	0.267	0.043	0.037	0.003	0.015	0.0002	0.0000	0.0102	0.06	0.50
748062.80	4307213.60	273.5	1-HR	4TH	127.9	124.7	0.02	0.02	0.02	0.02	20.26	0.012	0.012	0.004	0.002	0.002	0.013	0.0003	0.0000	0.0084	0.04	0.41
748114.80	4307131.20	273.3	1-HR	4TH	128.8	125.8	0.02	0.02	0.02	0.02	18.15	0.015	0.014	0.003	0.001	0.003	0.015	0.0002	0.0000	0.0064	0.04	0.47
747442.10	4308168.40	273.3	1-HR	4TH	128.6	125.3	0.02	0.02	0.02	0.02	18.92	0.001	0.001	0.001	0.001	0.002	0.012	0.0003	0.0000	0.0090	0.03	0.39
748000.00	4307300.00	273.3	1-HR	4TH	128.0	124.8	0.03	0.03	0.03	0.03	19.95	0.010	0.010	0.005	0.003	0.002	0.011	0.0001	0.0000	0.0060	0.04	0.36
747900.00	4307400.00	273.2	1-HR	4TH	127.6	124.4	0.04	0.04	0.04	0.04	20.50	0.007	0.007	0.008	0.006	0.002	0.013	0.0002	0.0000	0.0086	0.04	0.44
747697.30	4307573.30	273.1	1-HR	4TH	127.9	124.9	0.07	0.07	0.07	0.07	19.42	0.005	0.006	0.004	0.031	0.003	0.016	0.0002	0.0000	0.0100	0.05	0.52
748148.20	4307131.70	273.1	1-HR	4TH	128.6	125.6	0.02	0.02	0.02	0.02	18.15	0.015	0.015	0.003	0.001	0.003	0.015	0.0002	0.0000	0.0066	0.04	0.47
747746.90	4307575.60	273.1	1-HR	4TH	127.8	124.8	0.08	0.08	0.08	0.08	19.42	0.005	0.005	0.020	0.056	0.003	0.016	0.0002	0.0000	0.0103	0.05	0.52
747571.20	4308069.10	272.9	1-HR	4TH	127.7	124.7	0.06	0.06	0.06	0.06	19.41	0.005	0.006	0.003	0.003	0.004	0.023	0.0003	0.0000	0.0145	0.09	0.68
748147.50	4307173.80	272.7	1-HR	4TH	127.5	124.4	0.02	0.02	0.02	0.02	20.26	0.014	0.014	0.004	0.002	0.002	0.013	0.0002	0.0000	0.0081	0.04	0.41
748155.30	4307117.00	272.7	1-HR	4TH	128.5	125.5	0.02	0.02	0.02	0.02	18.15	0.015	0.015	0.003	0.001	0.003	0.015	0.0002	0.0000	0.0064	0.04	0.47
747619.60	4308060.40	272.6	1-HR	4TH	127.6	124.5	0.07	0.07	0.07	0.07	19.41	0.004	0.005	0.003	0.004	0.004	0.023	0.0003	0.0000	0.0143	0.09	0.68
748104.80	4307214.80	272.5	1-HR	4TH	127.4	124.3	0.02	0.02	0.02	0.02	20.26	0.013	0.012	0.005	0.002	0.002	0.013	0.0003	0.0000	0.0087	0.04	0.41
747600.00	4308100.00	272.4	1-HR	4TH	128.1	124.8	0.05	0.05	0.05	0.05	18.53	0.003	0.005	0.002	0.002	0.003	0.021	0.0004	0.0000	0.0125	0.08	0.59
747796.50	4307577.90	272.4	1-HR	4TH	127.4	124.4	0.08	0.08	0.08	0.08	19.42	0.005	0.005	0.066	0.105	0.003	0.016	0.0002	0.0000	0.0104	0.05	0.52
747485.60	4308166.70	272.2	1-HR	4TH	128.0	124.8	0.02	0.02	0.02	0.02	18.92	0.001	0.001	0.001	0.001	0.002	0.012	0.0003	0.0000	0.0088	0.04	0.39
748195.80	4307102.90	272.0	1-HR	4TH	128.1	125.1	0.01	0.01	0.01	0.01	18.15	0.016	0.016	0.003	0.001	0.003	0.015	0.0002	0.0000	0.0064	0.04	0.48
748534.60	4307748.50	272.0	1-HR	4TH	119.7	116.8	4.20	4.27	4.25	4.15	17.62	0.303	0.259	0.021	0.015	0.003	0.012	0.0003	0.0000	0.0090	0.05	0.41
748200.00	4307100.00	271.9	1-HR	4TH	128.1	125.1	0.01	0.01	0.01	0.01	18.15	0.016	0.016	0.003	0.001	0.003	0.015	0.0002	0.0000	0.0063	0.04	0.48
748341.70	4307603.00	271.7	1-HR	4TH	122.9	120.0	2.12	2.10	2.05	2.00	19.42	0.098	0.064	0.128	0.194	0.003	0.016	0.0002	0.0000	0.0109	0.06	0.54
748146.70	4307215.90	271.7	1-HR	4TH	127.0	123.8	0.02	0.02	0.02	0.02	20.26	0.013	0.012	0.006	0.002	0.002	0.013	0.0003	0.0000	0.0090	0.04	0.41
748440.90	4307607.60	271.7	1-HR	4TH	120.4	117.4	3.29	3.26	3.16	3.05	20.00	0.183	0.134	0.085	0.089	0.003	0.018	0.0004	0.0000	0.0116	0.06	0.57
747668.00	4308051.70	271.5	1-HR	4TH	127.0	123.9	0.08	0.08	0.08	0.08	19.41	0.003	0.004	0.003	0.004	0.004	0.023	0.0003	0.0000	0.0141	0.10	0.68
748236.30	4307088.80	271.5	1-HR	4TH	127.8	124.8	0.01	0.01	0.01	0.01	18.15	0.017	0.016	0.003	0.001	0.003	0.015	0.0002	0.0000	0.0064	0.04	0.48
747846.00	4307580.20	271.4	1-HR	4TH	126.9	123.9	0.09	0.09	0.09	0.09	19.42	0.005	0.005	0.127	0.067	0.003	0.016	0.0002	0.0000	0.0106	0.05	0.52
748391.30	4307605.30	271.3	1-HR	4TH	121.0	117.9	2.89	2.87	2.81	2.74	20.00	0.139	0.096	0.097	0.126	0.003	0.018	0.0004	0.0000	0.0119	0.06	0.57
748100.00	4307300.00	271.3	1-HR	4TH	126.5	123.4	0.03	0.03	0.03	0.03	20.77	0.011	0.010	0.013	0.003	0.002	0.012	0.0002	0.0000	0.0079	0.04	0.40
747529.20	4308165.00	271.2	1-HR	4TH	127.5	124.3	0.02	0.02	0.02	0.02	18.92	0.001	0.001	0.001	0.001	0.002	0.012	0.0003	0.0000	0.0085	0.04	0.39
748538.20	4307657.60	271.2	1-HR	4TH	118.8	116.0	3.84	3.82	3.64	3.52	20.82	0.095	0.081	0.070	0.075	0.002	0.010	0.0002	0.0000	0.0093	0.03	0.33
747900.00	4307500.00	271.1	1-HR	4TH	126.5	123.3	0.06	0.06	0.06	0.06	20.50	0.005	0.005	0.044	0.005	0.002	0.013	0.0002	0.0000	0.0103	0.05	0.44
748300.00	4307100.00	271.0	1-HR	4TH	127.6	124.6	0.01	0.01	0.01	0.01	18.15	0.018	0.017	0.005	0.002	0.003	0.015	0.0002	0.0000	0.0070	0.04	0.48
748000.00	4307400.00	271.0	1-HR	4TH	126.5	123.3	0.04	0.04	0.04	0.04	20.50	0.007	0.007	0.022	0.005	0.002	0.013	0.0002	0.0000	0.0090	0.05	0.44
748200.00	4307200.00	270.9	1-HR	4TH	126.6	123.4	0.02	0.02	0.02	0.02	20.26	0.014	0.013	0.007	0.002	0.002	0.013	0.0003	0.0000	0.0090	0.04	0.42
748600.00	4307700.00	270.9	1-HR	4TH	117.9	115.1	3.89	3.95	3.93	3.82	20.89	0.378	0.324	0.040	0.033	0.003	0.015	0.0002	0.0000	0.0101	0.06	0.51
748300.00	4307600.00	270.8	1-HR	4TH	123.2	120.1	2.24	2.16	2.00	1.85	18.48	0.017	0.010	0.140	0.286	0.002	0.010	0.0003	0.0000	0.0113	0.03	0.32
748400.00	4307600.00	270.7	1-HR	4TH	120.9	117.8	2.78	2.76	2.71	2.64	20.00	0.143	0.099	0.098	0.126	0.003	0.018	0.0004	0.0000	0.0119	0.06	0.57
748276.80	4307074.60	270.7	1-HR	4TH	127.4	124.5	0.01	0.01	0.01	0.01	18.15	0.017	0.017	0.004	0.001	0.003	0.016	0.0002	0.0000	0.0064	0.04	0.48
748292.20	4307600.70	270.7	1-HR	4TH	123.2	120.1	2.17	2.09	1.93	1.78	18.48	0.016	0.009	0.142	0.296	0.002	0.010	0.0003	0.0000	0.0113	0.03	0.32
747945.20	4307584.70	270.5	1-HR	4TH	126.3	123.3	0.05	0.05	0.05	0.05	19.42	0.001	0.001	0.207	0.747	0.001	0.009	0.0002	0.0000	0.0103	0.03	0.30
747895.60	4307582.50	270.4	1-HR	4TH	126.4	123.3	0.09	0.09	0.09	0.09	19.42	0.004	0.004	0.167	0.177	0.003	0.016	0.0002	0.0000	0.0107	0.05	0.52
747716.30	4308043.00	270.4	1-HR	4TH	126.4	123.3	0.09	0.09	0.09	0.09	19.41	0.003	0.003	0.003	0.005	0.004	0.023	0.0003	0.0000	0.0139	0.10	0.69
748317.30	4307060.50	270.3	1-HR	4TH	127.2	124.3	0.01	0.01	0.01	0.01	18.15	0.018	0.017	0.004	0.001	0.003	0.016	0.0002	0.0000	0.0064	0.04	0.48
748490.50	4307609.80	270.2	1-HR	4TH	119.0	116.0	3.76	3.72	3.60	3.43	20.00	0.086	0.066	0.076	0.074	0.002	0.011	0.0004	0.0000	0.0105	0.03	0.33
747572.70	4308163.30	270.2	1-HR	4TH	126.4	123.3	0.03	0.03	0.03	0.03	19.79	0.005	0.005	0.002	0.002	0.002	0.014	0.0003	0.0000	0.0100	0.05	0.50
747994.70	4307587.00	270.1	1-HR	4TH	125.9	122.8	0.04	0.04	0.04	0.05	19.42	0.001	0.001	0.236	1.301	0.002	0.009	0.0002	0.0000	0.0104	0.03	0.30
747764.20	4308033.70	269.9	1-HR	4TH	126.2	123.1	0.11	0.11	0.11	0.11	19.41	0.003	0.003	0.003	0.006	0.004	0.023	0.0003	0.0000	0.0137	0.10	0.69
748357.90	4307046.30	269.7	1-HR	4TH	126.9	123.9	0.01	0.01	0.01	0.01	18.15	0.019	0.018	0.004	0.001	0.003	0.016	0.0002	0.0000	0.0064	0.04	0.48
748396.80	4307070.10	269.5	1-HR	4TH	126.9	123.9	0.01	0.01	0.01	0.01	18.15	0.021	0.019	0.006	0.002	0.003	0.016	0.0002	0.0000	0.0070	0.04	0.48
747616.30	4308161.50	269.5	1-HR	4TH	127.6	125.0	0.03	0.03	0.03	0.03	16.23	0.004	0.004	0.001	0.002	0.002	0.012	0.0002	0.0000	0.0135	0.04	0.40

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
747700.00	4308100.00	269.4	1-HR	4TH	126.4	123.1	0.03	0.03	0.03	0.03	19.37	0.001	0.001	0.001	0.002	0.002	0.011	0.0004	0.0000	0.0094	0.04	0.32
748000.00	4307500.00	269.4	1-HR	4TH	126.0	123.0	0.06	0.06	0.06	0.06	19.42	0.006	0.006	0.092	0.038	0.003	0.016	0.0002	0.0000	0.0096	0.05	0.53
747665.40	4308159.50	269.3	1-HR	4TH	127.6	125.0	0.03	0.03	0.03	0.03	16.23	0.004	0.004	0.001	0.002	0.002	0.012	0.0002	0.0000	0.0132	0.04	0.40
748242.60	4307598.40	269.2	1-HR	4TH	123.5	120.5	1.31	1.27	1.19	1.11	19.42	0.012	0.006	0.172	0.365	0.002	0.009	0.0002	0.0000	0.0104	0.03	0.30
748500.00	4307600.00	269.2	1-HR	4TH	119.0	115.9	3.53	3.50	3.38	3.23	20.00	0.082	0.063	0.080	0.078	0.002	0.011	0.0004	0.0000	0.0105	0.03	0.33
747812.00	4308024.40	269.2	1-HR	4TH	125.7	122.7	0.12	0.12	0.12	0.12	19.41	0.003	0.003	0.003	0.006	0.004	0.023	0.0003	0.0000	0.0135	0.10	0.69
748398.40	4307032.20	269.1	1-HR	4TH	126.6	123.7	0.01	0.01	0.01	0.01	18.15	0.021	0.019	0.005	0.001	0.003	0.016	0.0002	0.0000	0.0064	0.04	0.48
747714.50	4308157.50	269.1	1-HR	4TH	127.4	124.8	0.03	0.03	0.03	0.03	16.23	0.004	0.004	0.001	0.002	0.002	0.012	0.0002	0.0000	0.0130	0.04	0.40
748395.30	4307108.00	269.1	1-HR	4TH	125.7	122.5	0.02	0.02	0.02	0.02	20.26	0.022	0.019	0.009	0.002	0.003	0.013	0.0003	0.0000	0.0084	0.04	0.42
748200.00	4307300.00	268.9	1-HR	4TH	125.3	122.2	0.03	0.03	0.03	0.03	20.77	0.013	0.011	0.027	0.006	0.002	0.012	0.0002	0.0000	0.0082	0.04	0.40
748044.30	4307589.30	268.9	1-HR	4TH	125.6	122.5	0.05	0.05	0.05	0.04	19.14	0.001	0.001	0.208	0.775	0.002	0.013	0.0003	0.0000	0.0134	0.04	0.38
748300.00	4307200.00	268.7	1-HR	4TH	125.6	122.6	0.02	0.02	0.02	0.02	19.95	0.017	0.015	0.012	0.003	0.002	0.011	0.0001	0.0000	0.0057	0.04	0.37
748100.00	4307400.00	268.6	1-HR	4TH	125.3	122.1	0.03	0.03	0.03	0.03	20.50	0.008	0.008	0.053	0.012	0.002	0.013	0.0002	0.0000	0.0092	0.05	0.44
747859.80	4308015.10	268.6	1-HR	4TH	101.8	99.3	12.07	12.54	12.75	12.83	16.19	0.017	0.006	0.002	0.288	0.011	0.022	0.0003	0.0001	0.0087	0.09	0.67
747756.30	4308152.30	268.6	1-HR	4TH	126.0	123.4	0.06	0.06	0.06	0.06	18.08	0.006	0.006	0.002	0.003	0.004	0.023	0.0002	0.0000	0.0149	0.09	0.70
748100.00	4307500.00	268.5	1-HR	4TH	125.4	122.4	0.07	0.07	0.07	0.07	19.42	0.008	0.006	0.137	0.128	0.003	0.016	0.0002	0.0000	0.0099	0.05	0.53
748540.00	4307612.10	268.4	1-HR	4TH	118.8	115.8	3.26	3.23	3.13	3.00	20.00	0.274	0.220	0.066	0.060	0.004	0.018	0.0004	0.0000	0.0110	0.06	0.57
747798.10	4308147.10	268.3	1-HR	4TH	125.9	123.2	0.07	0.07	0.07	0.07	18.08	0.006	0.006	0.002	0.003	0.004	0.023	0.0002	0.0000	0.0147	0.09	0.71
748436.40	4307110.10	268.2	1-HR	4TH	125.2	122.1	0.02	0.02	0.02	0.02	20.26	0.026	0.021	0.012	0.003	0.003	0.013	0.0003	0.0000	0.0087	0.04	0.42
748193.00	4307596.10	268.1	1-HR	4TH	123.1	120.0	1.14	1.08	0.97	0.86	20.00	0.007	0.003	0.178	0.454	0.002	0.011	0.0004	0.0000	0.0124	0.03	0.32
748532.80	4307794.00	268.1	1-HR	4TH	119.7	116.8	2.26	2.29	2.86	2.86	19.41	0.489	0.395	0.034	0.023	0.005	0.024	0.0003	0.0000	0.0118	0.10	0.74
749031.30	4306340.10	268.0	1-HR	4TH	125.5	122.4	0.00	0.00	0.00	0.00	19.89	0.002	0.002	0.000	0.000	0.002	0.006	0.0000	0.0000	0.0008	0.01	0.17
747839.80	4308141.90	267.9	1-HR	4TH	125.7	123.0	0.07	0.07	0.07	0.07	18.08	0.005	0.006	0.002	0.003	0.004	0.023	0.0002	0.0000	0.0145	0.09	0.71
748093.90	4307591.60	267.8	1-HR	4TH	125.0	121.8	0.16	0.15	0.12	0.10	19.06	0.002	0.001	0.205	0.756	0.002	0.012	0.0005	0.0000	0.0145	0.03	0.34
747907.60	4308005.80	267.6	1-HR	4TH	124.9	121.9	0.13	0.13	0.13	0.13	19.41	0.002	0.002	0.003	0.007	0.004	0.023	0.0003	0.0000	0.0132	0.10	0.70
749077.70	4306342.30	267.6	1-HR	4TH	123.6	120.5	0.06	0.06	0.06	0.06	21.71	0.262	0.233	0.009	0.004	0.009	0.038	0.0002	0.0000	0.0053	0.09	0.90
747881.60	4308136.70	267.6	1-HR	4TH	125.5	122.9	0.07	0.07	0.07	0.07	18.08	0.005	0.005	0.002	0.003	0.004	0.023	0.0002	0.0000	0.0143	0.10	0.72
748143.50	4307593.90	267.3	1-HR	4TH	124.3	121.0	0.52	0.48	0.41	0.34	19.06	0.003	0.002	0.186	0.623	0.002	0.012	0.0005	0.0000	0.0141	0.03	0.34
748477.50	4307112.10	267.3	1-HR	4TH	124.7	121.6	0.02	0.02	0.02	0.02	20.26	0.031	0.024	0.015	0.004	0.003	0.014	0.0003	0.0000	0.0089	0.04	0.43
748700.00	4307700.00	267.2	1-HR	4TH	118.8	115.8	2.45	2.47	2.71	2.66	19.47	0.965	0.863	0.033	0.025	0.006	0.024	0.0003	0.0000	0.0101	0.10	0.77
747923.40	4308131.50	267.1	1-HR	4TH	125.2	122.2	0.07	0.07	0.08	0.08	18.57	0.005	0.005	0.002	0.003	0.004	0.023	0.0003	0.0000	0.0111	0.10	0.71
748913.20	4306482.20	267.0	1-HR	4TH	125.9	122.9	0.00	0.00	0.00	0.00	18.03	0.003	0.003	0.000	0.000	0.002	0.007	0.0001	0.0000	0.0012	0.01	0.20
749012.50	4306373.90	267.0	1-HR	4TH	123.3	120.2	0.06	0.06	0.06	0.06	21.71	0.241	0.212	0.009	0.004	0.009	0.038	0.0002	0.0000	0.0053	0.09	0.89
748200.00	4307500.00	267.0	1-HR	4TH	124.4	121.5	0.17	0.17	0.16	0.15	19.42	0.017	0.010	0.159	0.175	0.003	0.016	0.0002	0.0000	0.0100	0.06	0.54
748400.00	4307200.00	266.9	1-HR	4TH	124.3	121.2	0.03	0.03	0.03	0.02	20.77	0.026	0.020	0.025	0.006	0.002	0.012	0.0002	0.0000	0.0074	0.04	0.41
748916.10	4306448.90	266.8	1-HR	4TH	125.5	122.5	0.00	0.00	0.00	0.00	18.60	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.0000	0.0011	0.01	0.15
748906.70	4306514.50	266.8	1-HR	4TH	126.6	123.5	0.00	0.00	0.00	0.00	16.49	0.001	0.001	0.000	0.000	0.001	0.006	0.0001	0.0000	0.0015	0.01	0.16
747800.00	4308100.00	266.8	1-HR	4TH	125.1	121.8	0.04	0.04	0.04	0.04	19.37	0.001	0.001	0.001	0.002	0.002	0.011	0.0004	0.0000	0.0087	0.04	0.32
748300.00	4307300.00	266.6	1-HR	4TH	124.2	121.1	0.04	0.03	0.03	0.03	20.50	0.018	0.014	0.044	0.012	0.003	0.014	0.0002	0.0000	0.0083	0.05	0.45
748942.90	4306451.80	266.5	1-HR	4TH	125.4	122.4	0.00	0.00	0.00	0.00	18.60	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.0000	0.0012	0.01	0.15
748200.00	4307400.00	266.5	1-HR	4TH	124.1	121.0	0.05	0.05	0.05	0.05	20.50	0.012	0.010	0.088	0.030	0.002	0.013	0.0002	0.0000	0.0094	0.05	0.45
747966.80	4308124.20	266.4	1-HR	4TH	124.7	121.6	0.08	0.08	0.09	0.09	19.00	0.006	0.006	0.002	0.003	0.004	0.020	0.0003	0.0000	0.0087	0.09	0.63
747955.40	4307996.50	266.4	1-HR	4TH	124.4	121.4	0.11	0.11	0.07	0.07	19.41	0.015	0.002	0.002	0.007	0.004	0.023	0.0003	0.0000	0.0130	0.10	0.70
749000.00	4306400.00	266.2	1-HR	4TH	125.5	122.4	0.00	0.00	0.00	0.00	18.12	0.001	0.001	0.000	0.000	0.001	0.006	0.0001	0.0000	0.0014	0.01	0.16
748875.40	4306568.50	266.2	1-HR	4TH	125.3	122.2	0.00	0.00	0.00	0.00	18.60	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.0000	0.0018	0.01	0.15
748518.60	4307114.20	266.2	1-HR	4TH	124.2	121.1	0.02	0.02	0.02	0.02	20.26	0.039	0.029	0.019	0.005	0.003	0.014	0.0003	0.0000	0.0091	0.04	0.43
748900.30	4306546.80	266.1	1-HR	4TH	125.2	122.1	0.00	0.00	0.00	0.00	18.60	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.0000	0.0017	0.01	0.15
748850.50	4306590.20	266.1	1-HR	4TH	126.3	123.2	0.00	0.00	0.00	0.00	16.44	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.0000	0.0021	0.01	0.16
748993.70	4306407.70	266.1	1-HR	4TH	125.4	122.3	0.00	0.00	0.00	0.00	18.12	0.001	0.001	0.000	0.000	0.001	0.006	0.0001	0.0000	0.0014	0.01	0.16
748826.20	4306616.30	266.0	1-HR	4TH	126.4	123.2	0.00	0.00	0.00	0.00	16.18	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.0000	0.0028	0.01	0.17
748600.00	4307600.00	265.9	1-HR	4TH	117.1	114.0	4.01	3.93	3.71	3.49	19.06	0.071	0.058	0.058	0.052	0.002	0.012	0.0004	0.0000	0.0104	0.03	0.35

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748801.90	4306642.50	265.9	1-HR	4TH	126.3	123.1	0.00	0.00	0.00	0.00	16.23	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.0000	0.0028	0.01	0.16
748300.00	4307500.00	265.9	1-HR	4TH	123.9	120.8	0.25	0.24	0.23	0.22	19.42	0.007	0.004	0.176	0.224	0.002	0.009	0.0002	0.0000	0.0095	0.03	0.30
748400.00	4307500.00	265.6	1-HR	4TH	123.0	120.0	0.61	0.60	0.58	0.56	19.42	0.017	0.010	0.155	0.204	0.002	0.009	0.0002	0.0000	0.0095	0.03	0.30
748010.20	4308116.90	265.6	1-HR	4TH	124.4	121.4	0.07	0.07	0.07	0.07	18.57	0.006	0.005	0.002	0.003	0.004	0.023	0.0003	0.0000	0.0108	0.10	0.73
749000.00	4306500.00	265.5	1-HR	4TH	126.0	122.9	0.00	0.00	0.00	0.00	16.49	0.001	0.001	0.000	0.000	0.001	0.01	0.0001	0.0000	0.0018	0.01	0.16
748973.00	4306446.30	265.5	1-HR	4TH	124.9	121.9	0.00	0.00	0.00	0.00	18.60	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.0000	0.0012	0.01	0.15
748900.00	4306600.00	265.3	1-HR	4TH	126.0	122.9	0.00	0.00	0.00	0.00	16.23	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.0000	0.0028	0.01	0.16
748777.60	4306668.60	265.3	1-HR	4TH	126.2	122.9	0.00	0.00	0.00	0.00	15.97	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.0000	0.0031	0.01	0.15
748559.80	4307116.30	265.2	1-HR	4TH	123.7	120.6	0.03	0.03	0.03	0.03	20.26	0.049	0.036	0.023	0.006	0.003	0.014	0.0003	0.0000	0.0094	0.04	0.43
748500.00	4307500.00	265.2	1-HR	4TH	122.9	120.0	0.76	0.75	0.74	0.73	18.57	0.025	0.018	0.142	0.155	0.002	0.011	0.0002	0.0000	0.0101	0.03	0.36
747900.00	4308100.00	265.1	1-HR	4TH	124.2	121.6	0.09	0.09	0.09	0.09	18.08	0.005	0.005	0.002	0.004	0.004	0.023	0.0002	0.0000	0.0143	0.10	0.72
749124.20	4306344.40	265.1	1-HR	4TH	123.2	120.0	0.07	0.07	0.07	0.07	19.97	0.283	0.254	0.010	0.005	0.009	0.039	0.0002	0.0000	0.0058	0.09	0.93
748053.60	4308109.70	265.0	1-HR	4TH	124.1	121.2	0.07	0.07	0.07	0.07	18.57	0.008	0.005	0.002	0.003	0.004	0.023	0.0003	0.0000	0.0107	0.10	0.73
748662.20	4306791.30	265.0	1-HR	4TH	125.3	122.3	0.00	0.00	0.00	0.00	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.0000	0.0035	0.01	0.20
748559.10	4307145.00	264.8	1-HR	4TH	123.6	120.6	0.03	0.03	0.03	0.03	19.95	0.054	0.039	0.021	0.006	0.002	0.011	0.0001	0.0000	0.0059	0.04	0.38
748500.00	4307200.00	264.7	1-HR	4TH	123.1	120.0	0.04	0.04	0.04	0.04	20.77	0.047	0.033	0.036	0.012	0.002	0.012	0.0002	0.0000	0.0077	0.04	0.41
748746.60	4306703.40	264.6	1-HR	4TH	125.9	122.7	0.00	0.00	0.00	0.00	15.74	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.0000	0.0034	0.01	0.18
748000.00	4308100.00	264.5	1-HR	4TH	123.9	121.3	0.08	0.08	0.08	0.08	18.08	0.006	0.005	0.002	0.004	0.004	0.023	0.0002	0.0000	0.0138	0.10	0.74
748300.00	4307400.00	264.5	1-HR	4TH	123.0	119.9	0.09	0.09	0.08	0.08	20.50	0.024	0.016	0.109	0.052	0.003	0.013	0.0002	0.0000	0.0095	0.05	0.45
748640.10	4306828.20	264.5	1-HR	4TH	126.3	123.1	0.00	0.00	0.00	0.00	14.85	0.000	0.000	0.001	0.000	0.001	0.007	0.0002	0.0000	0.0061	0.01	0.21
748400.00	4307300.00	264.4	1-HR	4TH	123.0	120.0	0.06	0.06	0.06	0.05	20.50	0.035	0.024	0.060	0.022	0.003	0.014	0.0002	0.0000	0.0086	0.05	0.46
748700.00	4306800.00	264.3	1-HR	4TH	125.0	121.9	0.00	0.00	0.00	0.00	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.0000	0.0038	0.01	0.20
749100.00	4306400.00	264.3	1-HR	4TH	124.3	121.3	0.00	0.00	0.00	0.00	18.60	0.001	0.001	0.000	0.000	0.002	0.005	0.0001	0.0000	0.0013	0.01	0.15
748675.20	4306901.10	264.3	1-HR	4TH	124.1	121.1	0.01	0.01	0.01	0.01	18.38	0.038	0.034	0.004	0.001	0.004	0.021	0.0001	0.0000	0.0046	0.06	0.56
748097.00	4308102.40	264.3	1-HR	4TH	123.7	120.8	0.06	0.06	0.06	0.06	18.57	0.016	0.008	0.002	0.003	0.004	0.023	0.0003	0.0000	0.0107	0.10	0.72
748100.00	4308100.00	264.2	1-HR	4TH	123.7	120.8	0.06	0.06	0.06	0.06	18.57	0.018	0.008	0.002	0.003	0.004	0.023	0.0003	0.0000	0.0107	0.10	0.72
748709.90	4306925.90	264.1	1-HR	4TH	123.5	120.6	0.02	0.02	0.02	0.02	18.85	0.097	0.080	0.009	0.003	0.005	0.025	0.0001	0.0000	0.0048	0.08	0.75
748696.50	4306769.80	264.1	1-HR	4TH	124.8	121.8	0.00	0.00	0.00	0.00	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.0000	0.0033	0.01	0.20
748715.40	4306885.60	264.1	1-HR	4TH	123.9	121.0	0.01	0.01	0.01	0.01	18.38	0.041	0.036	0.004	0.001	0.004	0.020	0.0001	0.0000	0.0046	0.06	0.57
748640.10	4306853.10	264.0	1-HR	4TH	124.1	121.2	0.01	0.01	0.01	0.01	17.89	0.034	0.032	0.003	0.001	0.004	0.021	0.0001	0.0000	0.0038	0.06	0.58
748750.50	4306910.20	263.9	1-HR	4TH	123.4	120.5	0.02	0.02	0.02	0.02	18.85	0.108	0.088	0.009	0.003	0.006	0.025	0.0001	0.0000	0.0048	0.08	0.75
748656.70	4306878.00	263.9	1-HR	4TH	124.1	121.1	0.01	0.01	0.01	0.01	17.89	0.035	0.033	0.003	0.001	0.004	0.021	0.0001	0.0000	0.0042	0.06	0.58
748098.80	4307968.60	263.9	1-HR	4TH	123.7	120.5	0.09	0.08	0.06	0.06	18.53	0.039	0.030	0.002	0.004	0.004	0.022	0.0003	0.0000	0.0115	0.09	0.63
748731.40	4306735.00	263.7	1-HR	4TH	124.6	121.6	0.00	0.00	0.00	0.00	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.0000	0.0031	0.01	0.20
748700.00	4307600.00	263.7	1-HR	4TH	117.4	114.6	2.81	2.82	2.76	2.47	20.09	0.164	0.135	0.071	0.079	0.002	0.008	0.0002	0.0000	0.0078	0.02	0.26
748600.00	4307500.00	263.6	1-HR	4TH	120.6	117.7	1.12	1.12	1.12	1.13	19.42	0.254	0.200	0.102	0.109	0.003	0.016	0.0002	0.0000	0.0101	0.06	0.55
748755.60	4306870.00	263.5	1-HR	4TH	123.9	121.0	0.01	0.01	0.01	0.01	17.89	0.044	0.038	0.005	0.001	0.005	0.021	0.0001	0.0000	0.0046	0.06	0.59
748602.70	4307146.10	263.5	1-HR	4TH	122.5	119.5	0.04	0.04	0.04	0.04	20.77	0.070	0.051	0.030	0.010	0.003	0.012	0.0002	0.0000	0.0073	0.04	0.42
748400.00	4307400.00	263.5	1-HR	4TH	123.4	120.4	0.18	0.17	0.17	0.16	18.17	0.054	0.034	0.107	0.076	0.003	0.014	0.0002	0.0000	0.0092	0.05	0.46
748600.00	4307800.00	263.5	1-HR	4TH	119.4	116.5	1.54	1.55	1.75	1.76	20.24	0.147	0.122	0.023	0.015	0.003	0.014	0.0003	0.0000	0.0102	0.05	0.43
748800.00	4307000.00	263.4	1-HR	4TH	122.7	119.6	0.03	0.03	0.03	0.03	20.26	0.098	0.078	0.020	0.006	0.003	0.014	0.0003	0.0000	0.0086	0.04	0.44
748722.20	4306750.70	263.4	1-HR	4TH	124.5	121.5	0.00	0.00	0.00	0.00	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.0000	0.0032	0.01	0.20
748146.60	4307959.30	263.4	1-HR	4TH	123.3	120.1	0.15	0.13	0.15	0.14	18.53	0.051	0.042	0.003	0.004	0.004	0.022	0.0003	0.0000	0.0114	0.09	0.63
748800.00	4307700.00	263.4	1-HR	4TH	117.7	114.9	1.98	2.00	2.36	2.36	19.41	0.843	0.766	0.044	0.031	0.006	0.025	0.0002	0.0000	0.0112	0.10	0.76
748723.90	4306950.00	263.3	1-HR	4TH	123.7	120.8	0.02	0.02	0.02	0.02	18.15	0.061	0.048	0.009	0.003	0.003	0.016	0.0002	0.0000	0.0067	0.04	0.50
748800.00	4306700.00	263.3	1-HR	4TH	125.3	122.1	0.00	0.00	0.00	0.00	15.74	0.000	0.000	0.001	0.000	0.001	0.006	0.0002	0.0000	0.0037	0.01	0.18
748140.40	4308095.10	263.3	1-HR	4TH	123.3	120.3	0.06	0.06	0.06	0.06	18.57	0.029	0.016	0.002	0.003	0.004	0.023	0.0003	0.0000	0.0106	0.10	0.72
748737.90	4306971.80	263.3	1-HR	4TH	123.6	120.7	0.02	0.02	0.02	0.02	18.15	0.070	0.054	0.012	0.004	0.003	0.016	0.0002	0.0000	0.0071	0.04	0.49
748759.90	4306998.10	263.1	1-HR	4TH	122.6	119.5	0.03	0.03	0.03	0.03	20.26	0.083	0.065	0.017	0.005	0.003	0.014	0.0003	0.0000	0.0083	0.04	0.44
748791.10	4306894.40	263.1	1-HR	4TH	122.3	119.4	0.03	0.03	0.03	0.03	20.12	0.119	0.097	0.008	0.003	0.006	0.027	0.0001	0.0000	0.0044	0.08	0.81
749123.70	4306413.50	263.0	1-HR	4TH	123.8	120.9	0.00	0.00	0.00	0.00	18.03	0.003	0.003	0.000	0.000	0.002	0.007	0.0001	0.0000	0.0014	0.01	0.21

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748800.00	4306900.00	263.0	1-HR	4TH	122.9	120.0	0.03	0.03	0.03	0.03	18.85	0.125	0.102	0.010	0.003	0.006	0.025	0.0001	0.0000	0.0049	0.08	0.75
749000.00	4306600.00	262.8	1-HR	4TH	125.0	121.7	0.00	0.00	0.00	0.00	15.97	0.000	0.000	0.001	0.000	0.001	0.006	0.0002	0.0000	0.0035	0.01	0.15
749114.30	4306440.70	262.8	1-HR	4TH	124.6	121.5	0.00	0.00	0.00	0.00	16.49	0.001	0.001	0.000	0.000	0.002	0.006	0.0001	0.0000	0.0017	0.01	0.16
748194.40	4307950.00	262.8	1-HR	4TH	122.9	119.7	0.11	0.10	0.09	0.09	19.37	0.034	0.034	0.001	0.002	0.002	0.011	0.0003	0.0000	0.0095	0.04	0.34
748795.80	4306854.40	262.7	1-HR	4TH	123.5	120.5	0.01	0.01	0.01	0.01	17.89	0.047	0.041	0.005	0.001	0.005	0.021	0.0001	0.0000	0.0046	0.06	0.59
748530.90	4307839.50	262.7	1-HR	4TH	120.9	117.7	1.03	1.03	1.04	1.04	19.37	0.089	0.076	0.011	0.004	0.002	0.011	0.0003	0.0000	0.0096	0.04	0.35
749170.60	4306346.60	262.7	1-HR	4TH	123.7	120.6	0.00	0.00	0.00	0.00	18.12	0.001	0.001	0.000	0.000	0.002	0.006	0.0001	0.0000	0.0016	0.01	0.16
748831.70	4306878.60	262.7	1-HR	4TH	122.1	119.2	0.03	0.03	0.03	0.03	20.12	0.131	0.107	0.008	0.003	0.006	0.027	0.0001	0.0000	0.0044	0.08	0.81
748100.00	4308000.00	262.7	1-HR	4TH	123.1	120.0	0.06	0.06	0.05	0.05	18.53	0.026	0.018	0.002	0.004	0.004	0.021	0.0003	0.0000	0.0111	0.09	0.63
748646.40	4307147.20	262.7	1-HR	4TH	122.0	119.0	0.05	0.05	0.05	0.05	20.77	0.087	0.065	0.034	0.013	0.003	0.012	0.0002	0.0000	0.0075	0.04	0.42
748500.00	4307300.00	262.5	1-HR	4TH	122.0	118.9	0.10	0.10	0.10	0.09	20.50	0.069	0.047	0.070	0.032	0.003	0.014	0.0002	0.0000	0.0087	0.05	0.46
749142.90	4306382.60	262.5	1-HR	4TH	123.3	120.4	0.00	0.00	0.00	0.00	18.60	0.001	0.001	0.000	0.000	0.002	0.005	0.0001	0.0000	0.0013	0.01	0.15
748782.00	4307024.50	262.5	1-HR	4TH	122.2	119.1	0.03	0.03	0.03	0.03	20.26	0.099	0.078	0.022	0.007	0.003	0.014	0.0003	0.0000	0.0088	0.04	0.44
748500.00	4307400.00	262.4	1-HR	4TH	121.8	118.9	0.31	0.30	0.30	0.30	19.42	0.111	0.076	0.097	0.081	0.003	0.016	0.0002	0.0000	0.0091	0.06	0.55
748183.80	4308087.80	262.4	1-HR	4TH	122.8	119.9	0.05	0.05	0.05	0.05	18.57	0.045	0.029	0.002	0.002	0.004	0.023	0.0003	0.0000	0.0106	0.10	0.72
748600.00	4307200.00	262.2	1-HR	4TH	121.8	118.7	0.06	0.06	0.06	0.06	20.77	0.084	0.061	0.045	0.018	0.003	0.012	0.0002	0.0000	0.0079	0.04	0.42
749100.00	4306500.00	262.2	1-HR	4TH	124.3	121.2	0.00	0.00	0.00	0.00	16.44	0.001	0.001	0.001	0.000	0.002	0.006	0.0001	0.0000	0.0023	0.01	0.16
748836.00	4306838.90	262.1	1-HR	4TH	123.2	120.2	0.01	0.01	0.01	0.01	17.89	0.051	0.044	0.005	0.001	0.005	0.021	0.0001	0.0000	0.0046	0.06	0.59
748700.00	4307500.00	262.1	1-HR	4TH	118.6	115.7	1.56	1.56	1.58	1.61	20.00	0.358	0.299	0.082	0.075	0.004	0.018	0.0004	0.0000	0.0113	0.06	0.58
748242.30	4307940.70	262.0	1-HR	4TH	122.4	119.2	0.16	0.15	0.15	0.15	19.37	0.037	0.038	0.001	0.002	0.002	0.011	0.0003	0.0000	0.0094	0.04	0.34
748872.30	4306862.80	261.9	1-HR	4TH	122.8	119.9	0.01	0.01	0.01	0.01	18.38	0.061	0.051	0.007	0.002	0.005	0.021	0.0001	0.0000	0.0050	0.06	0.57
748800.00	4306800.00	261.9	1-HR	4TH	123.0	120.1	0.01	0.01	0.01	0.01	17.89	0.043	0.038	0.003	0.001	0.005	0.021	0.0001	0.0000	0.0039	0.06	0.59
748900.00	4306900.00	261.9	1-HR	4TH	122.9	120.0	0.02	0.02	0.02	0.02	18.15	0.101	0.083	0.012	0.004	0.003	0.016	0.0002	0.0000	0.0068	0.04	0.51
749114.80	4306469.80	261.8	1-HR	4TH	123.0	120.0	0.00	0.00	0.00	0.00	18.60	0.001	0.001	0.001	0.000	0.002	0.005	0.0001	0.0000	0.0018	0.01	0.15
748690.00	4307148.30	261.8	1-HR	4TH	121.5	118.5	0.06	0.06	0.06	0.06	20.77	0.107	0.082	0.037	0.015	0.003	0.012	0.0002	0.0000	0.0076	0.04	0.42
748900.00	4307000.00	261.7	1-HR	4TH	121.7	118.7	0.05	0.05	0.05	0.04	20.26	0.138	0.115	0.026	0.010	0.003	0.014	0.0003	0.0000	0.0090	0.04	0.44
748227.00	4308080.50	261.7	1-HR	4TH	122.4	119.5	0.05	0.05	0.05	0.05	18.57	0.063	0.046	0.002	0.002	0.004	0.023	0.0003	0.0000	0.0105	0.10	0.72
748912.90	4306847.10	261.6	1-HR	4TH	122.7	119.7	0.01	0.01	0.01	0.01	18.38	0.066	0.055	0.007	0.002	0.005	0.021	0.0001	0.0000	0.0050	0.06	0.58
748800.00	4307600.00	261.6	1-HR	4TH	116.9	114.1	2.22	2.23	2.17	2.13	20.82	0.209	0.171	0.064	0.064	0.002	0.010	0.0002	0.0000	0.0089	0.03	0.34
748290.10	4307931.40	261.5	1-HR	4TH	122.0	118.8	0.22	0.21	0.21	0.21	19.37	0.040	0.042	0.002	0.002	0.002	0.011	0.0003	0.0000	0.0093	0.04	0.34
748804.00	4307050.80	261.4	1-HR	4TH	121.6	118.6	0.05	0.05	0.04	0.04	20.26	0.117	0.094	0.029	0.010	0.003	0.014	0.0003	0.0000	0.0093	0.04	0.44
748876.20	4306823.30	261.3	1-HR	4TH	122.7	119.8	0.01	0.01	0.01	0.01	17.89	0.055	0.047	0.005	0.001	0.005	0.021	0.0001	0.0000	0.0045	0.06	0.59
748900.00	4306700.00	261.3	1-HR	4TH	123.4	120.4	0.00	0.00	0.00	0.00	17.19	0.001	0.001	0.001	0.000	0.001	0.007	0.0001	0.0000	0.0035	0.01	0.20
749115.30	4306498.80	261.2	1-HR	4TH	123.8	120.8	0.00	0.00	0.00	0.00	16.44	0.001	0.001	0.001	0.000	0.002	0.006	0.0001	0.0000	0.0024	0.01	0.16
749000.00	4306900.00	261.2	1-HR	4TH	122.5	119.6	0.04	0.03	0.03	0.03	18.15	0.136	0.115	0.015	0.006	0.004	0.016	0.0002	0.0000	0.0073	0.04	0.51
749000.00	4307000.00	261.1	1-HR	4TH	121.4	118.3	0.07	0.07	0.07	0.07	20.26	0.181	0.156	0.031	0.013	0.003	0.014	0.0003	0.0000	0.0094	0.04	0.44
748952.50	4306830.50	261.0	1-HR	4TH	122.6	119.7	0.01	0.01	0.01	0.01	17.89	0.071	0.060	0.008	0.002	0.005	0.021	0.0001	0.0000	0.0050	0.06	0.60
748270.20	4308073.20	261.0	1-HR	4TH	122.0	119.1	0.06	0.06	0.06	0.06	18.57	0.087	0.064	0.002	0.002	0.004	0.023	0.0003	0.0000	0.0104	0.10	0.72
748337.90	4307922.20	261.0	1-HR	4TH	121.6	118.5	0.27	0.26	0.26	0.26	19.37	0.043	0.044	0.003	0.002	0.002	0.011	0.0003	0.0000	0.0093	0.04	0.34
748900.00	4307700.00	261.0	1-HR	4TH	117.4	114.5	1.86	1.88	1.99	1.99	20.24	0.286	0.254	0.033	0.021	0.003	0.014	0.0002	0.0000	0.0098	0.05	0.44
748733.70	4307149.40	261.0	1-HR	4TH	121.1	118.0	0.08	0.08	0.07	0.07	20.77	0.129	0.101	0.040	0.017	0.003	0.012	0.0002	0.0000	0.0077	0.04	0.42
748700.00	4307800.00	261.0	1-HR	4TH	120.3	117.3	1.49	1.50	1.51	1.52	16.68	0.157	0.132	0.015	0.006	0.002	0.011	0.0002	0.0000	0.0096	0.04	0.32
748600.00	4307400.00	260.9	1-HR	4TH	120.7	117.8	0.45	0.45	0.45	0.45	19.42	0.184	0.139	0.094	0.079	0.003	0.017	0.0002	0.0000	0.0092	0.06	0.56
748800.00	4307500.00	260.9	1-HR	4TH	117.5	114.5	1.85	1.84	1.80	1.77	20.00	0.457	0.399	0.068	0.056	0.004	0.018	0.0004	0.0000	0.0108	0.06	0.59
748900.00	4307600.00	260.8	1-HR	4TH	116.2	113.6	2.12	2.15	2.13	2.11	21.55	0.217	0.182	0.063	0.054	0.002	0.010	0.0002	0.0000	0.0102	0.03	0.31
748911.80	4306808.00	260.7	1-HR	4TH	122.4	119.5	0.01	0.01	0.01	0.01	17.89	0.059	0.050	0.006	0.001	0.005	0.021	0.0001	0.0000	0.0045	0.06	0.60
748900.00	4306800.00	260.6	1-HR	4TH	122.4	119.5	0.01	0.01	0.01	0.01	17.89	0.055	0.047	0.005	0.001	0.005	0.021	0.0001	0.0000	0.0043	0.06	0.60
748600.00	4307300.00	260.6	1-HR	4TH	120.8	117.8	0.17	0.17	0.17	0.17	20.50	0.124	0.090	0.074	0.043	0.003	0.014	0.0002	0.0000	0.0088	0.05	0.46
749122.60	4306533.00	260.5	1-HR	4TH	123.6	120.5	0.00	0.00	0.00	0.00	16.23	0.001	0.000	0.001	0.000	0.002	0.006	0.0001	0.0000	0.0031	0.01	0.16
748313.40	4308066.00	260.5	1-HR	4TH	121.7	118.8	0.07	0.07	0.07	0.07	18.57	0.116	0.087	0.003	0.002	0.004	0.023	0.0003	0.0000	0.0103	0.10	0.72
748992.10	4306813.90	260.4	1-HR	4TH	122.3	119.4	0.01	0.01	0.01	0.01	17.89	0.076	0.064	0.008	0.002	0.005	0.021	0.0001	0.0000	0.0050	0.06	0.60

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748200.00	4308000.00	260.4	1-HR	4TH	121.9	118.8	0.08	0.08	0.08	0.08	18.53	0.044	0.032	0.002	0.003	0.004	0.022	0.0003	0.0000	0.0106	0.09	0.63
748700.00	4307200.00	260.3	1-HR	4TH	120.8	117.8	0.10	0.10	0.10	0.10	20.50	0.134	0.103	0.048	0.022	0.003	0.014	0.0002	0.0000	0.0080	0.05	0.47
748947.50	4306792.80	260.2	1-HR	4TH	122.2	119.3	0.01	0.01	0.01	0.01	17.89	0.062	0.053	0.006	0.001	0.005	0.021	0.0001	0.0000	0.0045	0.06	0.60
748778.30	4307145.90	260.2	1-HR	4TH	120.6	117.6	0.09	0.09	0.09	0.09	20.77	0.151	0.120	0.041	0.019	0.003	0.012	0.0002	0.0000	0.0077	0.04	0.42
748385.70	4307912.90	260.1	1-HR	4TH	121.1	117.9	0.31	0.31	0.31	0.31	19.37	0.048	0.045	0.003	0.002	0.002	0.011	0.0003	0.0000	0.0092	0.04	0.34
749100.00	4306800.00	260.1	1-HR	4TH	120.8	118.0	0.04	0.04	0.04	0.04	19.63	0.229	0.197	0.010	0.004	0.007	0.028	0.0001	0.0000	0.0045	0.08	0.85
749037.90	4306794.00	260.0	1-HR	4TH	122.0	119.2	0.01	0.01	0.01	0.01	17.89	0.082	0.070	0.008	0.002	0.005	0.021	0.0001	0.0000	0.0049	0.06	0.60
748356.60	4308058.70	260.0	1-HR	4TH	121.4	118.5	0.10	0.10	0.10	0.09	18.57	0.152	0.115	0.003	0.002	0.005	0.023	0.0003	0.0000	0.0102	0.10	0.73
749100.00	4306900.00	259.9	1-HR	4TH	120.8	117.8	0.05	0.05	0.05	0.05	20.26	0.174	0.151	0.021	0.009	0.004	0.014	0.0003	0.0000	0.0083	0.04	0.45
749000.00	4306700.00	259.9	1-HR	4TH	122.7	119.7	0.00	0.00	0.00	0.00	17.19	0.001	0.001	0.002	0.000	0.002	0.007	0.0001	0.0000	0.0040	0.01	0.20
748828.10	4307091.50	259.8	1-HR	4TH	120.5	117.5	0.07	0.07	0.07	0.07	20.77	0.149	0.120	0.032	0.014	0.003	0.012	0.0002	0.0000	0.0073	0.04	0.42
748700.00	4307400.00	259.7	1-HR	4TH	119.8	116.9	0.59	0.59	0.59	0.59	19.42	0.269	0.218	0.086	0.075	0.004	0.017	0.0002	0.0000	0.0093	0.06	0.56
749088.30	4306729.30	259.5	1-HR	4TH	121.8	118.9	0.01	0.01	0.01	0.01	17.89	0.077	0.066	0.006	0.001	0.005	0.021	0.0001	0.0000	0.0043	0.06	0.61
749083.70	4306774.00	259.5	1-HR	4TH	121.8	118.9	0.01	0.01	0.01	0.01	17.89	0.088	0.075	0.008	0.002	0.005	0.021	0.0001	0.0000	0.0049	0.06	0.61
748900.00	4307100.00	259.5	1-HR	4TH	120.2	117.2	0.10	0.10	0.10	0.10	20.77	0.195	0.163	0.037	0.018	0.003	0.012	0.0002	0.0000	0.0075	0.04	0.43
748399.80	4308051.50	259.5	1-HR	4TH	121.0	118.2	0.13	0.12	0.13	0.12	18.57	0.200	0.150	0.004	0.002	0.005	0.023	0.0003	0.0000	0.0102	0.10	0.73
748433.50	4307903.60	259.4	1-HR	4TH	120.6	117.5	0.35	0.35	0.35	0.35	19.37	0.054	0.050	0.004	0.002	0.002	0.011	0.0003	0.0000	0.0091	0.04	0.34
748983.10	4306777.50	259.4	1-HR	4TH	121.8	118.9	0.01	0.01	0.01	0.01	17.89	0.066	0.056	0.006	0.001	0.005	0.022	0.0001	0.0000	0.0044	0.06	0.60
749000.00	4307600.00	259.4	1-HR	4TH	116.4	113.7	2.04	2.06	2.05	2.03	20.33	0.217	0.187	0.053	0.044	0.002	0.008	0.0002	0.0000	0.0101	0.02	0.25
748836.60	4307114.70	259.2	1-HR	4TH	120.1	117.1	0.09	0.09	0.09	0.09	20.77	0.165	0.135	0.037	0.017	0.003	0.012	0.0002	0.0000	0.0075	0.04	0.42
748816.80	4307148.00	259.2	1-HR	4TH	120.1	117.1	0.11	0.11	0.11	0.11	20.77	0.174	0.141	0.043	0.021	0.003	0.012	0.0002	0.0000	0.0078	0.04	0.42
748900.00	4307500.00	259.1	1-HR	4TH	116.2	113.1	2.62	2.57	2.44	2.33	19.06	0.164	0.134	0.056	0.046	0.003	0.012	0.0004	0.0000	0.0102	0.03	0.35
748443.00	4308044.20	259.0	1-HR	4TH	120.7	117.8	0.16	0.16	0.16	0.16	18.57	0.262	0.195	0.005	0.002	0.005	0.023	0.0003	0.0000	0.0101	0.10	0.73
748800.00	4307400.00	258.9	1-HR	4TH	119.5	116.5	0.71	0.71	0.70	0.70	19.42	0.098	0.072	0.084	0.071	0.002	0.010	0.0002	0.0000	0.0087	0.03	0.31
748481.30	4307894.30	258.9	1-HR	4TH	120.3	117.2	0.39	0.38	0.38	0.39	19.37	0.062	0.056	0.005	0.002	0.002	0.011	0.0003	0.0000	0.0091	0.04	0.34
748800.00	4307200.00	258.9	1-HR	4TH	119.9	116.9	0.16	0.16	0.15	0.15	20.50	0.195	0.159	0.052	0.027	0.003	0.014	0.0002	0.0000	0.0082	0.05	0.47
749022.90	4306759.50	258.9	1-HR	4TH	121.5	118.6	0.01	0.01	0.01	0.01	17.89	0.070	0.060	0.006	0.001	0.005	0.022	0.0001	0.0000	0.0044	0.06	0.60
749062.70	4306741.50	258.8	1-HR	4TH	121.5	118.6	0.01	0.01	0.01	0.01	17.89	0.075	0.064	0.006	0.001	0.005	0.021	0.0001	0.0000	0.0043	0.06	0.61
748700.00	4307300.00	258.8	1-HR	4TH	119.6	116.6	0.28	0.27	0.27	0.27	20.50	0.192	0.151	0.076	0.051	0.003	0.014	0.0002	0.0000	0.0089	0.05	0.47
749100.00	4306600.00	258.8	1-HR	4TH	123.0	119.9	0.00	0.00	0.00	0.00	15.74	0.001	0.001	0.002	0.000	0.002	0.007	0.0002	0.0000	0.0040	0.01	0.18
748486.20	4308036.90	258.6	1-HR	4TH	120.3	117.5	0.19	0.19	0.20	0.20	18.57	0.336	0.254	0.005	0.002	0.005	0.023	0.0003	0.0000	0.0100	0.10	0.73
748300.00	4308000.00	258.6	1-HR	4TH	120.1	117.1	0.17	0.17	0.18	0.18	19.41	0.177	0.142	0.004	0.002	0.005	0.024	0.0003	0.0000	0.0116	0.11	0.75
748400.00	4308000.00	258.5	1-HR	4TH	120.1	117.5	0.34	0.33	0.35	0.35	18.08	0.277	0.215	0.006	0.003	0.005	0.024	0.0002	0.0000	0.0127	0.10	0.75
748500.00	4308000.00	258.4	1-HR	4TH	119.8	117.3	0.37	0.36	0.38	0.38	18.08	0.433	0.337	0.008	0.003	0.005	0.024	0.0002	0.0000	0.0125	0.10	0.75
748529.10	4307885.00	258.4	1-HR	4TH	119.9	116.8	0.41	0.41	0.42	0.42	19.37	0.073	0.064	0.006	0.002	0.002	0.011	0.0003	0.0000	0.0090	0.04	0.34
748529.40	4308029.70	258.3	1-HR	4TH	120.0	117.2	0.23	0.23	0.23	0.23	18.57	0.420	0.325	0.006	0.002	0.005	0.023	0.0003	0.0000	0.0099	0.10	0.74
749129.50	4306754.10	258.2	1-HR	4TH	121.1	118.3	0.01	0.01	0.01	0.01	17.89	0.093	0.080	0.008	0.002	0.006	0.022	0.0001	0.0000	0.0048	0.06	0.61
748600.00	4308000.00	258.1	1-HR	4TH	119.5	116.6	0.37	0.36	0.38	0.38	18.57	0.613	0.501	0.009	0.003	0.005	0.023	0.0003	0.0000	0.0099	0.10	0.75
748800.00	4307800.00	258.1	1-HR	4TH	119.4	116.4	1.20	1.21	1.22	1.22	16.68	0.203	0.176	0.014	0.006	0.002	0.011	0.0002	0.0000	0.0093	0.04	0.32
748855.30	4307150.00	258.1	1-HR	4TH	119.4	116.4	0.13	0.13	0.13	0.13	20.77	0.197	0.163	0.044	0.023	0.003	0.012	0.0002	0.0000	0.0078	0.04	0.42
748500.00	4307900.00	258.1	1-HR	4TH	120.0	116.9	0.34	0.33	0.34	0.34	19.37	0.063	0.056	0.005	0.002	0.002	0.011	0.0003	0.0000	0.0089	0.04	0.34
749100.00	4306700.00	258.0	1-HR	4TH	123.0	119.9	0.00	0.00	0.00	0.00	14.85	0.001	0.001	0.005	0.001	0.002	0.007	0.0003	0.0000	0.0071	0.01	0.21
749000.00	4307700.00	258.0	1-HR	4TH	116.5	113.7	1.50	1.52	1.61	1.61	20.24	0.341	0.309	0.029	0.019	0.003	0.014	0.0002	0.0000	0.0096	0.05	0.44
748900.00	4307400.00	257.9	1-HR	4TH	119.3	116.6	0.66	0.65	0.65	0.66	18.57	0.112	0.087	0.084	0.063	0.002	0.012	0.0002	0.0000	0.0092	0.03	0.37
748575.30	4308024.60	257.8	1-HR	4TH	119.8	116.8	0.17	0.17	0.18	0.18	19.00	0.439	0.368	0.005	0.002	0.004	0.020	0.0003	0.0000	0.0081	0.10	0.65
749138.30	4306573.60	257.8	1-HR	4TH	122.4	119.2	0.00	0.00	0.00	0.00	15.97	0.001	0.000	0.001	0.000	0.002	0.006	0.0002	0.0000	0.0039	0.01	0.15
749000.00	4307400.00	257.8	1-HR	4TH	117.9	115.1	0.88	0.88	0.87	0.88	19.42	0.561	0.506	0.063	0.050	0.004	0.017	0.0002	0.0000	0.0094	0.06	0.57
748900.00	4307200.00	257.6	1-HR	4TH	119.0	116.0	0.23	0.23	0.22	0.22	20.50	0.265	0.224	0.052	0.032	0.003	0.014	0.0002	0.0000	0.0083	0.05	0.48
748800.00	4307300.00	257.5	1-HR	4TH	118.6	115.6	0.39	0.39	0.39	0.39	20.50	0.271	0.225	0.072	0.056	0.003	0.014	0.0002	0.0000	0.0089	0.05	0.47
749100.00	4307000.00	257.4	1-HR	4TH	118.9	115.9	0.12	0.12	0.12	0.12	21.08	0.242	0.210	0.040	0.021	0.004	0.015	0.0003	0.0000	0.0106	0.04	0.48
749000.00	4307100.00	257.3	1-HR	4TH	119.0	116.0	0.15	0.15	0.15	0.14	20.77	0.256	0.219	0.039	0.021	0.003	0.012	0.0002	0.0000	0.0077	0.04	0.43

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748621.10	4308019.50	257.3	1-HR	4TH	119.4	116.4	0.18	0.18	0.19	0.19	19.00	0.505	0.434	0.006	0.002	0.005	0.020	0.0003	0.0000	0.0081	0.10	0.65
749200.00	4306900.00	257.2	1-HR	4TH	119.4	116.4	0.07	0.07	0.07	0.07	20.26	0.212	0.189	0.024	0.012	0.004	0.014	0.0003	0.0000	0.0086	0.04	0.45
749100.00	4307600.00	257.1	1-HR	4TH	116.8	113.9	1.55	1.55	1.56	1.54	18.20	0.674	0.645	0.034	0.023	0.004	0.015	0.0003	0.0000	0.0098	0.05	0.50
749113.80	4306717.00	256.9	1-HR	4TH	120.5	117.7	0.01	0.01	0.01	0.01	17.89	0.079	0.068	0.006	0.001	0.005	0.022	0.0001	0.0000	0.0042	0.06	0.61
749200.00	4306800.00	256.8	1-HR	4TH	119.6	116.7	0.05	0.05	0.05	0.04	18.85	0.289	0.253	0.013	0.005	0.007	0.026	0.0001	0.0000	0.0052	0.08	0.78
748700.00	4308000.00	256.8	1-HR	4TH	118.9	116.0	0.22	0.22	0.23	0.23	19.00	0.636	0.567	0.007	0.003	0.005	0.021	0.0003	0.0000	0.0080	0.10	0.66
748667.00	4308014.40	256.7	1-HR	4TH	119.0	116.1	0.19	0.19	0.20	0.20	19.00	0.570	0.500	0.006	0.002	0.005	0.020	0.0003	0.0000	0.0080	0.10	0.65
749150.30	4306605.00	256.7	1-HR	4TH	121.9	118.8	0.00	0.00	0.00	0.00	15.74	0.001	0.001	0.002	0.000	0.002	0.007	0.0002	0.0000	0.0044	0.01	0.18
749175.30	4306734.20	256.6	1-HR	4TH	120.3	117.5	0.01	0.01	0.01	0.01	17.89	0.098	0.084	0.008	0.002	0.006	0.022	0.0001	0.0000	0.0047	0.06	0.61
749100.00	4307400.00	256.5	1-HR	4TH	116.1	113.2	1.34	1.32	1.29	1.27	20.00	0.663	0.608	0.054	0.043	0.005	0.018	0.0003	0.0000	0.0105	0.06	0.60
748712.80	4308009.30	256.3	1-HR	4TH	118.7	115.8	0.20	0.20	0.21	0.21	19.00	0.631	0.564	0.007	0.002	0.005	0.021	0.0003	0.0000	0.0079	0.10	0.66
749000.00	4307200.00	256.2	1-HR	4TH	118.1	115.1	0.31	0.30	0.30	0.30	20.50	0.341	0.296	0.052	0.034	0.003	0.014	0.0002	0.0000	0.0084	0.05	0.48
748900.00	4307300.00	256.1	1-HR	4TH	118.9	116.0	0.44	0.44	0.44	0.44	18.17	0.353	0.304	0.064	0.048	0.003	0.014	0.0002	0.0000	0.0086	0.05	0.48
749200.00	4307000.00	255.9	1-HR	4TH	118.2	115.3	0.14	0.14	0.13	0.13	20.77	0.307	0.270	0.031	0.016	0.004	0.013	0.0002	0.0000	0.0072	0.04	0.44
748753.50	4308004.00	255.9	1-HR	4TH	118.4	115.5	0.21	0.21	0.22	0.22	19.00	0.686	0.622	0.007	0.003	0.005	0.021	0.0003	0.0000	0.0079	0.10	0.67
749000.00	4307300.00	255.9	1-HR	4TH	117.8	115.0	0.49	0.49	0.49	0.50	19.42	0.454	0.401	0.059	0.044	0.004	0.017	0.0002	0.0000	0.0086	0.06	0.58
749000.00	4307500.00	255.8	1-HR	4TH	115.0	111.9	2.37	2.32	2.21	2.11	19.06	0.222	0.189	0.046	0.035	0.003	0.012	0.0004	0.0000	0.0097	0.03	0.36
748600.00	4307900.00	255.8	1-HR	4TH	119.5	116.6	0.68	0.68	0.68	0.68	16.23	0.179	0.131	0.007	0.007	0.002	0.012	0.0002	0.0000	0.0078	0.04	0.40
749170.60	4306640.00	255.8	1-HR	4TH	120.6	117.7	0.00	0.00	0.00	0.00	17.19	0.001	0.001	0.003	0.001	0.002	0.007	0.0001	0.0000	0.0041	0.01	0.20
749153.70	4306698.90	255.7	1-HR	4TH	121.0	118.0	0.00	0.00	0.00	0.00	16.39	0.002	0.001	0.005	0.001	0.002	0.010	0.0002	0.0000	0.0060	0.02	0.26
749275.00	4306838.90	255.6	1-HR	4TH	119.5	116.7	0.06	0.06	0.06	0.06	18.15	0.209	0.187	0.018	0.009	0.004	0.017	0.0002	0.0000	0.0074	0.04	0.51
749287.30	4306879.20	255.5	1-HR	4TH	118.4	115.5	0.08	0.08	0.08	0.08	20.26	0.236	0.212	0.025	0.013	0.004	0.015	0.0003	0.0000	0.0086	0.04	0.45
749199.50	4306722.00	255.4	1-HR	4TH	119.7	116.9	0.01	0.01	0.01	0.01	17.89	0.100	0.086	0.008	0.002	0.006	0.022	0.0001	0.0000	0.0046	0.06	0.61
748794.10	4307998.70	255.3	1-HR	4TH	118.1	115.1	0.22	0.22	0.22	0.22	19.00	0.739	0.679	0.007	0.003	0.005	0.021	0.0003	0.0000	0.0079	0.10	0.67
749262.70	4306798.50	255.2	1-HR	4TH	119.4	116.6	0.04	0.04	0.04	0.04	18.15	0.185	0.165	0.015	0.007	0.004	0.017	0.0002	0.0000	0.0069	0.04	0.52
748800.00	4308000.00	255.2	1-HR	4TH	118.0	115.1	0.21	0.21	0.22	0.22	19.00	0.742	0.683	0.007	0.003	0.005	0.021	0.0003	0.0000	0.0078	0.10	0.67
749253.10	4306775.10	255.2	1-HR	4TH	118.0	115.3	0.04	0.04	0.04	0.04	20.12	0.297	0.262	0.012	0.004	0.008	0.029	0.0001	0.0000	0.0047	0.08	0.84
749243.50	4306751.80	255.1	1-HR	4TH	118.3	115.6	0.04	0.04	0.04	0.04	19.63	0.275	0.242	0.011	0.004	0.008	0.029	0.0001	0.0000	0.0044	0.08	0.86
749100.00	4307700.00	255.1	1-HR	4TH	116.3	113.6	1.54	1.55	1.63	1.63	17.56	0.384	0.352	0.027	0.018	0.003	0.013	0.0002	0.0000	0.0093	0.05	0.42
749100.00	4307100.00	255.0	1-HR	4TH	117.7	114.8	0.20	0.19	0.19	0.19	20.50	0.320	0.280	0.039	0.022	0.004	0.014	0.0002	0.0000	0.0077	0.05	0.49
748834.80	4307993.40	254.9	1-HR	4TH	117.2	114.5	0.33	0.33	0.33	0.34	19.06	0.952	0.873	0.011	0.004	0.006	0.026	0.0003	0.0000	0.0121	0.13	0.80
749223.80	4306709.80	254.8	1-HR	4TH	119.4	116.5	0.01	0.01	0.01	0.01	17.89	0.102	0.088	0.008	0.002	0.006	0.022	0.0001	0.0000	0.0046	0.06	0.61
749100.00	4307300.00	254.7	1-HR	4TH	117.1	114.3	0.54	0.54	0.55	0.55	19.42	0.548	0.493	0.055	0.041	0.004	0.017	0.0002	0.0000	0.0087	0.06	0.58
748700.00	4307900.00	254.7	1-HR	4TH	118.0	115.2	0.73	0.73	0.73	0.73	17.10	0.484	0.409	0.011	0.009	0.003	0.015	0.0002	0.0000	0.0088	0.05	0.52
748800.00	4307900.00	254.7	1-HR	4TH	117.4	115.0	0.93	0.93	0.94	0.94	16.81	0.593	0.524	0.014	0.009	0.003	0.015	0.0002	0.0000	0.0115	0.05	0.51
749200.00	4307100.00	254.6	1-HR	4TH	117.3	114.4	0.25	0.25	0.25	0.25	20.50	0.398	0.354	0.040	0.025	0.004	0.014	0.0002	0.0000	0.0078	0.05	0.49
749193.50	4306680.90	254.6	1-HR	4TH	121.3	118.2	0.00	0.00	0.00	0.00	14.85	0.002	0.001	0.007	0.001	0.002	0.008	0.0003	0.0000	0.0073	0.01	0.21
748900.00	4307800.00	254.5	1-HR	4TH	118.4	115.4	0.79	0.79	0.79	0.79	16.68	0.247	0.221	0.013	0.006	0.003	0.011	0.0002	0.0000	0.0091	0.04	0.33
749292.10	4306911.00	254.5	1-HR	4TH	117.9	114.9	0.10	0.10	0.10	0.10	20.26	0.255	0.231	0.028	0.016	0.004	0.015	0.0003	0.0000	0.0089	0.04	0.45
749100.00	4307200.00	254.5	1-HR	4TH	117.0	114.0	0.38	0.38	0.38	0.38	20.50	0.422	0.374	0.051	0.036	0.004	0.014	0.0002	0.0000	0.0084	0.05	0.48
748881.40	4307989.60	254.5	1-HR	4TH	116.9	114.2	0.33	0.33	0.34	0.34	19.06	1.023	0.947	0.012	0.004	0.006	0.026	0.0003	0.0000	0.0120	0.13	0.80
748900.00	4307900.00	254.4	1-HR	4TH	117.4	114.9	0.83	0.83	0.83	0.84	16.81	0.705	0.642	0.015	0.010	0.003	0.015	0.0002	0.0000	0.0113	0.05	0.51
749200.00	4307400.00	254.1	1-HR	4TH	115.0	112.0	1.84	1.80	1.72	1.65	19.06	0.297	0.261	0.048	0.039	0.003	0.012	0.0004	0.0000	0.0101	0.03	0.36
748928.10	4307985.80	254.1	1-HR	4TH	116.6	113.9	0.34	0.34	0.35	0.35	19.06	1.089	1.018	0.012	0.004	0.007	0.026	0.0003	0.0000	0.0119	0.13	0.81
749200.00	4307600.00	253.9	1-HR	4TH	115.6	112.8	1.47	1.48	1.51	1.50	18.13	0.406	0.373	0.042	0.029	0.004	0.016	0.0002	0.0000	0.0106	0.05	0.49
749000.00	4307900.00	253.8	1-HR	4TH	118.0	115.4	0.44	0.44	0.44	0.45	17.24	0.425	0.403	0.010	0.005	0.003	0.012	0.0002	0.0000	0.0100	0.05	0.42
748974.80	4307982.00	253.6	1-HR	4TH	116.3	113.6	0.34	0.34	0.35	0.35	19.06	1.151	1.085	0.013	0.005	0.007	0.027	0.0003	0.0000	0.0118	0.13	0.81
749296.90	4306942.80	253.6	1-HR	4TH	116.8	113.8	0.16	0.16	0.16	0.16	21.08	0.313	0.278	0.036	0.022	0.004	0.016	0.0003	0.0000	0.0103	0.04	0.49
749021.40	4307978.10	253.2	1-HR	4TH	116.1	113.3	0.35	0.35	0.35	0.36	19.06	1.209	1.149	0.013	0.005	0.007	0.027	0.0003	0.0000	0.0117	0.13	0.82
749100.00	4307500.00	253.2	1-HR	4TH	115.2	112.6	1.23	1.23	1.21	1.20	19.51	0.269	0.237	0.058	0.054	0.002	0.009	0.0002	0.0000	0.0087	0.02	0.29
749200.00	4307300.00	253.2	1-HR	4TH	116.7	113.8	0.57	0.57	0.57	0.57	19.42	0.282	0.240	0.052	0.039	0.003	0.010	0.0002	0.0000	0.0080	0.03	0.32

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
749300.00	4307300.00	253.2	1-HR	4TH	116.9	114.2	0.61	0.60	0.59	0.58	18.57	0.293	0.257	0.055	0.040	0.003	0.012	0.0002	0.0000	0.0086	0.03	0.38
749068.10	4307974.30	252.8	1-HR	4TH	115.8	113.0	0.35	0.35	0.36	0.36	19.06	1.261	1.207	0.013	0.005	0.007	0.027	0.0003	0.0000	0.0117	0.13	0.82
749200.00	4307700.00	252.7	1-HR	4TH	116.3	113.4	1.22	1.24	1.24	1.24	16.68	0.464	0.439	0.020	0.012	0.003	0.011	0.0002	0.0000	0.0090	0.04	0.33
749301.20	4306986.80	252.6	1-HR	4TH	116.5	113.5	0.16	0.16	0.16	0.16	20.77	0.358	0.318	0.030	0.017	0.004	0.013	0.0002	0.0000	0.0071	0.04	0.44
749200.00	4307200.00	252.5	1-HR	4TH	115.8	112.9	0.44	0.44	0.44	0.45	20.50	0.506	0.456	0.048	0.035	0.004	0.014	0.0002	0.0000	0.0084	0.05	0.49
749112.10	4307966.00	252.4	1-HR	4TH	115.5	112.8	0.36	0.37	0.37	0.37	19.06	1.316	1.268	0.014	0.006	0.007	0.027	0.0003	0.0000	0.0116	0.13	0.83
749300.00	4307000.00	252.2	1-HR	4TH	116.2	113.3	0.18	0.18	0.17	0.17	20.77	0.369	0.328	0.031	0.018	0.004	0.013	0.0002	0.0000	0.0072	0.04	0.44
749300.00	4307600.00	252.2	1-HR	4TH	114.9	112.2	1.33	1.34	1.36	1.35	18.13	0.462	0.430	0.038	0.026	0.004	0.016	0.0002	0.0000	0.0105	0.05	0.50
749100.00	4307900.00	252.1	1-HR	4TH	117.4	114.6	0.26	0.26	0.26	0.26	17.73	0.442	0.425	0.008	0.004	0.003	0.012	0.0003	0.0000	0.0077	0.05	0.41
749306.50	4307011.60	251.9	1-HR	4TH	116.0	113.1	0.19	0.19	0.19	0.19	20.77	0.385	0.343	0.032	0.019	0.004	0.013	0.0002	0.0000	0.0073	0.04	0.44
749200.00	4307500.00	251.9	1-HR	4TH	113.9	111.2	1.14	1.14	1.12	1.11	20.82	0.498	0.456	0.046	0.043	0.003	0.010	0.0002	0.0000	0.0084	0.03	0.35
749156.20	4307957.80	251.8	1-HR	4TH	115.1	112.4	0.38	0.38	0.38	0.38	19.06	1.369	1.325	0.015	0.006	0.007	0.027	0.0003	0.0000	0.0116	0.13	0.84
749000.00	4307800.00	251.5	1-HR	4TH	117.3	114.4	0.53	0.53	0.53	0.54	16.68	0.288	0.264	0.012	0.005	0.003	0.011	0.0002	0.0000	0.0089	0.04	0.33
749311.80	4307036.40	251.2	1-HR	4TH	115.6	112.7	0.23	0.23	0.22	0.22	20.77	0.414	0.370	0.034	0.021	0.004	0.013	0.0002	0.0000	0.0074	0.04	0.44
749300.00	4307100.00	251.1	1-HR	4TH	115.4	112.5	0.30	0.30	0.30	0.30	20.50	0.468	0.422	0.039	0.026	0.004	0.015	0.0002	0.0000	0.0078	0.05	0.49
749300.00	4307400.00	251.0	1-HR	4TH	113.7	110.7	1.69	1.65	1.58	1.52	19.06	0.356	0.323	0.040	0.032	0.003	0.012	0.0004	0.0000	0.0096	0.03	0.36
749400.00	4307600.00	250.9	1-HR	4TH	113.8	111.0	1.03	1.03	1.06	1.06	20.24	0.531	0.501	0.028	0.019	0.004	0.014	0.0002	0.0000	0.0091	0.05	0.46
749200.20	4307949.50	250.8	1-HR	4TH	114.5	111.8	0.39	0.39	0.39	0.40	19.06	1.417	1.376	0.015	0.007	0.008	0.027	0.0003	0.0000	0.0115	0.13	0.84
749300.00	4307500.00	250.8	1-HR	4TH	113.2	110.6	1.03	1.03	1.03	1.02	21.55	0.468	0.426	0.047	0.043	0.003	0.010	0.0002	0.0000	0.0094	0.03	0.32
749315.90	4307068.20	250.7	1-HR	4TH	115.3	112.4	0.26	0.26	0.26	0.26	20.50	0.443	0.399	0.036	0.023	0.004	0.015	0.0002	0.0000	0.0076	0.05	0.49
749300.00	4307200.00	250.6	1-HR	4TH	115.9	113.1	0.44	0.44	0.44	0.44	18.17	0.584	0.535	0.044	0.032	0.004	0.015	0.0002	0.0000	0.0081	0.05	0.49
749318.10	4307094.30	250.4	1-HR	4TH	115.0	112.2	0.30	0.30	0.30	0.30	20.50	0.474	0.428	0.038	0.025	0.004	0.015	0.0002	0.0000	0.0078	0.05	0.49
749200.00	4307900.00	250.4	1-HR	4TH	115.6	112.9	0.43	0.43	0.43	0.44	17.78	0.816	0.780	0.015	0.007	0.005	0.018	0.0003	0.0000	0.0113	0.08	0.56
749100.00	4307800.00	250.3	1-HR	4TH	114.6	112.1	1.00	1.00	0.99	0.99	17.22	0.860	0.809	0.028	0.014	0.005	0.018	0.0002	0.0000	0.0123	0.08	0.51
749323.40	4307119.70	250.1	1-HR	4TH	114.8	111.9	0.35	0.35	0.35	0.35	20.50	0.507	0.461	0.040	0.027	0.004	0.015	0.0002	0.0000	0.0079	0.05	0.49
749300.00	4307700.00	250.0	1-HR	4TH	115.4	112.5	1.02	1.03	1.03	1.03	16.68	0.503	0.482	0.018	0.010	0.003	0.011	0.0002	0.0000	0.0089	0.04	0.34
749242.50	4307939.70	249.9	1-HR	4TH	115.7	113.0	0.32	0.32	0.32	0.33	17.78	0.789	0.756	0.012	0.005	0.005	0.018	0.0003	0.0000	0.0109	0.08	0.56
749373.80	4307280.70	249.9	1-HR	4TH	115.3	112.6	0.58	0.57	0.56	0.56	18.57	0.314	0.279	0.051	0.037	0.003	0.012	0.0001	0.0000	0.0084	0.03	0.38
749387.00	4307324.00	249.9	1-HR	4TH	113.1	110.2	1.09	1.07	1.04	1.02	20.00	0.813	0.769	0.043	0.033	0.005	0.019	0.0003	0.0000	0.0099	0.06	0.61
749284.80	4307930.00	249.7	1-HR	4TH	115.5	112.8	0.33	0.34	0.34	0.34	17.78	0.829	0.798	0.012	0.005	0.005	0.018	0.0003	0.0000	0.0109	0.08	0.56
749328.80	4307145.10	249.7	1-HR	4TH	114.4	111.5	0.40	0.40	0.40	0.40	20.50	0.541	0.494	0.042	0.030	0.004	0.015	0.0002	0.0000	0.0081	0.05	0.49
749360.70	4307237.30	249.4	1-HR	4TH	114.3	111.5	0.50	0.50	0.50	0.51	19.42	0.698	0.649	0.043	0.032	0.005	0.018	0.0002	0.0000	0.0083	0.06	0.59
749200.00	4307800.00	249.2	1-HR	4TH	113.8	111.2	0.95	0.95	0.94	0.94	17.80	0.942	0.895	0.029	0.015	0.005	0.020	0.0003	0.0000	0.0136	0.08	0.58
749400.00	4307500.00	249.2	1-HR	4TH	114.1	111.4	1.11	1.12	1.12	1.12	18.29	0.317	0.298	0.037	0.034	0.002	0.007	0.0002	0.0000	0.0086	0.02	0.22
749300.00	4307900.00	249.2	1-HR	4TH	115.0	112.4	0.40	0.40	0.40	0.40	17.78	0.869	0.838	0.015	0.007	0.005	0.018	0.0003	0.0000	0.0111	0.08	0.56
749327.10	4307920.30	249.2	1-HR	4TH	115.1	112.5	0.35	0.35	0.35	0.35	17.78	0.861	0.832	0.013	0.006	0.005	0.018	0.0003	0.0000	0.0109	0.08	0.56
749340.50	4307172.00	249.0	1-HR	4TH	115.1	112.3	0.40	0.40	0.40	0.40	18.17	0.577	0.530	0.041	0.030	0.004	0.015	0.0002	0.0000	0.0079	0.05	0.49
749350.60	4307204.70	248.9	1-HR	4TH	114.2	111.5	0.44	0.44	0.44	0.45	19.42	0.651	0.602	0.042	0.031	0.005	0.018	0.0002	0.0000	0.0081	0.06	0.59
749361.70	4307911.20	248.4	1-HR	4TH	114.7	112.1	0.36	0.36	0.36	0.36	17.78	0.884	0.856	0.014	0.006	0.005	0.018	0.0003	0.0000	0.0109	0.08	0.56
749451.10	4307515.60	248.2	1-HR	4TH	113.6	111.0	1.08	1.09	1.09	1.09	18.29	0.324	0.308	0.032	0.030	0.002	0.007	0.0002	0.0000	0.0085	0.02	0.22
749438.80	4307484.90	248.1	1-HR	4TH	113.6	111.0	1.04	1.05	1.05	1.06	18.29	0.330	0.312	0.036	0.034	0.002	0.007	0.0002	0.0000	0.0085	0.02	0.22
749400.20	4307367.40	248.0	1-HR	4TH	112.4	109.5	1.21	1.19	1.15	1.11	20.00	0.475	0.438	0.038	0.029	0.003	0.012	0.0003	0.0000	0.0088	0.03	0.35
749465.40	4307544.80	248.0	1-HR	4TH	113.2	110.5	1.11	1.11	1.13	1.12	18.13	0.518	0.487	0.037	0.027	0.005	0.016	0.0002	0.0000	0.0101	0.05	0.50
749396.20	4307902.00	247.9	1-HR	4TH	114.4	111.7	0.37	0.37	0.37	0.37	17.78	0.909	0.882	0.014	0.007	0.005	0.018	0.0003	0.0000	0.0108	0.08	0.57
749400.00	4307900.00	247.8	1-HR	4TH	114.4	111.7	0.37	0.37	0.37	0.37	17.78	0.912	0.886	0.014	0.007	0.005	0.018	0.0003	0.0000	0.0108	0.08	0.57
749400.00	4307700.00	247.8	1-HR	4TH	114.3	111.4	0.79	0.80	0.80	0.79	17.26	0.547	0.527	0.020	0.011	0.004	0.013	0.0003	0.0000	0.0103	0.05	0.41
749300.00	4307800.00	247.5	1-HR	4TH	113.8	111.3	0.82	0.82	0.82	0.82	17.26	0.632	0.606	0.021	0.011	0.004	0.014	0.0002	0.0000	0.0115	0.06	0.45
749430.80	4307892.90	247.5	1-HR	4TH	114.2	111.5	0.38	0.38	0.38	0.38	17.78	0.933	0.908	0.014	0.007	0.006	0.018	0.0003	0.0000	0.0108	0.08	0.57
749479.80	4307574.00	247.1	1-HR	4TH	112.0	109.3	0.95	0.96	0.98	0.98	20.24	0.538	0.510	0.028	0.020	0.004	0.015	0.0002	0.0000	0.0088	0.05	0.46
749468.10	4307879.40	247.1	1-HR	4TH	113.9	111.2	0.39	0.39	0.40	0.40	17.78	0.964	0.941	0.015	0.007	0.006	0.018	0.0003	0.0000	0.0108	0.08	0.57
749400.00	4307800.00	246.8	1-HR	4TH	113.2	110.8	0.85	0.86	0.85	0.85	16.81	1.025	0.996	0.022	0.016	0.004	0.015	0.0002	0.0000	0.0103	0.05	0.53

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Allowable Emissions

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS1	0052AS2	0052AS3	0052AS4	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
749426.50	4307454.20	246.8	1-HR	4TH	111.4	108.9	0.86	0.87	0.86	0.86	21.55	0.528	0.487	0.043	0.040	0.003	0.010	0.0002	0.0000	0.0091	0.03	0.32
749505.30	4307866.00	246.7	1-HR	4TH	113.6	111.0	0.41	0.41	0.41	0.41	17.78	0.993	0.971	0.016	0.008	0.006	0.018	0.0003	0.0000	0.0108	0.08	0.57
749542.60	4307852.50	246.3	1-HR	4TH	113.4	110.7	0.42	0.42	0.43	0.43	17.78	1.020	0.999	0.017	0.009	0.006	0.018	0.0003	0.0000	0.0109	0.08	0.57
749500.00	4307800.00	246.2	1-HR	4TH	113.4	110.7	0.52	0.52	0.52	0.52	17.29	1.027	1.007	0.017	0.013	0.004	0.015	0.0002	0.0000	0.0085	0.05	0.53
749497.60	4307608.70	246.1	1-HR	4TH	111.8	109.1	0.78	0.78	0.82	0.81	20.24	0.556	0.530	0.025	0.017	0.004	0.015	0.0002	0.0000	0.0087	0.05	0.46
749400.00	4307400.00	246.0	1-HR	4TH	111.4	108.6	1.20	1.18	1.14	1.10	20.00	0.485	0.451	0.034	0.026	0.003	0.012	0.0003	0.0000	0.0085	0.03	0.35
749413.30	4307410.80	245.7	1-HR	4TH	111.3	108.4	1.17	1.15	1.12	1.08	20.00	0.501	0.469	0.033	0.025	0.003	0.012	0.0003	0.0000	0.0084	0.03	0.35
749500.00	4307700.00	245.6	1-HR	4TH	111.4	108.8	1.13	1.14	1.13	1.11	17.80	1.168	1.132	0.035	0.021	0.006	0.020	0.0002	0.0000	0.0130	0.08	0.60
749641.00	4307774.70	244.9	1-HR	4TH	112.8	110.1	0.49	0.49	0.49	0.49	17.29	1.069	1.053	0.018	0.013	0.005	0.015	0.0002	0.0000	0.0084	0.05	0.53
749656.40	4307815.00	244.8	1-HR	4TH	112.5	109.9	0.46	0.46	0.46	0.46	17.78	1.085	1.068	0.018	0.010	0.007	0.018	0.0003	0.0000	0.0108	0.07	0.58
749518.60	4307644.60	244.7	1-HR	4TH	112.8	110.0	0.90	0.90	0.91	0.90	16.68	0.598	0.582	0.018	0.012	0.003	0.012	0.0002	0.0000	0.0087	0.04	0.34
749618.50	4307827.50	244.6	1-HR	4TH	112.4	109.8	0.44	0.44	0.45	0.45	17.78	1.055	1.036	0.018	0.010	0.006	0.018	0.0003	0.0000	0.0108	0.07	0.58
749625.70	4307734.40	244.3	1-HR	4TH	111.3	108.8	0.80	0.80	0.80	0.79	17.80	1.233	1.206	0.029	0.017	0.007	0.020	0.0003	0.0000	0.0128	0.08	0.60
749623.60	4307704.30	244.0	1-HR	4TH	111.0	108.5	0.88	0.88	0.87	0.87	17.80	1.239	1.210	0.031	0.019	0.007	0.020	0.0003	0.0000	0.0128	0.08	0.60
749592.20	4307710.50	244.0	1-HR	4TH	111.0	108.5	0.89	0.88	0.88	0.87	17.80	1.214	1.184	0.031	0.019	0.007	0.020	0.0003	0.0000	0.0128	0.08	0.60
749580.50	4307840.00	244.0	1-HR	4TH	112.2	109.6	0.43	0.43	0.43	0.43	17.78	1.017	0.997	0.017	0.009	0.006	0.019	0.0003	0.0000	0.0107	0.07	0.57
749600.00	4307800.00	243.9	1-HR	4TH	111.2	108.7	0.69	0.69	0.69	0.69	17.35	1.506	1.480	0.026	0.018	0.007	0.022	0.0002	0.0000	0.0116	0.08	0.68
749539.70	4307680.60	243.1	1-HR	4TH	111.0	108.3	0.81	0.81	0.81	0.80	18.13	0.929	0.909	0.023	0.014	0.005	0.017	0.0002	0.0000	0.0108	0.06	0.53
749560.70	4307716.60	243.0	1-HR	4TH	110.6	108.0	0.88	0.88	0.88	0.87	17.80	1.170	1.138	0.031	0.019	0.006	0.021	0.0003	0.0000	0.0127	0.08	0.60

Appendix D

Alton Steel, Inc. – Construction Permit # 18020009

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
BRUCE RAUNER, GOVERNOR ALEC MESSINA, DIRECTOR
217/782-1705

CONSTRUCTION PERMIT

PERMITTEE

Alton Steel, Inc.
Attn: Matt Gill
5 Cut Street
Alton, Illinois 62002

Application No.: 18020009 I.D. No.: 119010AAE
Applicant's Designation: Date Received: February 7, 2018
Subject: New Stack for Ladle Metallurgy Facility (LMF) Baghouse
Date Issued: March 5, 2018
Location: 5 Cut Street, Alton, Madison County

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a new vertical stack for the baghouse for the ladle metallurgy facility (LMF) as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Description

   a. This permit authorizes construction of a new vertical stack and connecting ductwork for the baghouse for the existing Ladle Metallurgy Facility (LMF). The new stack would permanently replace the four existing downward facing vents on the individual compartments of this baghouse. This project is an environmental improvement project that will improve dispersion of the emissions of the LMF. The Permittee has committed to this project to support the attainment demonstration that the Illinois EPA is preparing for the Alton area to support re-designation to attainment for the National Ambient Air Quality Standard for sulfur dioxide (SO_2), on a 1-hour average. This permit makes this commitment enforceable.

   b. This permit does not authorize other changes to LMF or this source.

2. Existing Applicable Requirements

   This permit does not change any existing requirements that apply to the furnace in the LMF. In particular, the SO_2 emission of this furnace shall not exceed 0.10 pound/ton of steel produced, 11.20 pounds/hour and 37.50 tons/year, as provided by Condition 7(b)(i) of Construction Permit 00010015, as restated by Condition 4.2.2(c)(i)(B) of the Clean Air Act Permit Program (CAAPP) permit for the source, Permit 96020056.

3. Design Requirements

The new stack for the baghouse for the LMF shall be designed so emission testing can be readily conducted, including having sampling port(s) for testing that satisfy the requirements of USEPA Reference Method 1.

4. Notification Requirement

a. The Permittee shall notify the Illinois EPA when the new stack for the baghouse for LMF is completed. This notification shall be submitted within 30 days of completion and include a diagram for the new stack showing that the test port(s) that complies with the requirements of USEPA Reference Method 1.

b. This notification shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

5. Effectiveness of Construction Permit

a. This construction permit will take effect 36 days after issuance or the day that the Permittee begins construction on this project, whichever occurs first. This condition supersedes Standard Condition 1.

b. This project shall be completed by no later than December 31, 2018.

c. Once this project has been completed, the Permittee shall notify the Illinois EPA prior to making any changes to the stack for the baghouse for LMF that would potentially act to reduce the dispersion of emissions and obtain a new or revised construction permit if necessary.

6. Application for Revision to the CAAPP Permit

By February 28, 2019, the Permittee shall apply for a minor modification to its CAAPP permit to specifically address the new stack for the LMF.

7. Authorization for Operation

The Permittee may operate the baghouse for the LMF with this new stack pursuant to this construction permit until the CAAPP permit for the source is renewed or revised to address this new stack. This condition supersedes Standard Condition 6.

If you have any questions on this permit, please contact Minesh Patel at 217/785-1705.

Raymond E. Pilapil
Manager, Permit Section
Division of Air Pollution Control

REP:MVP:jlp

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
P. O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.

2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:

    a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,

    b. to have access to and copy any records required to be kept under the terms and conditions of this permit,

    c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,

    d. to obtain and remove samples of any discharge or emission of pollutants, and

    e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

    a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,

    b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,

    c. does not release the Permittee from compliance with the other applicable statues and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,

    d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.

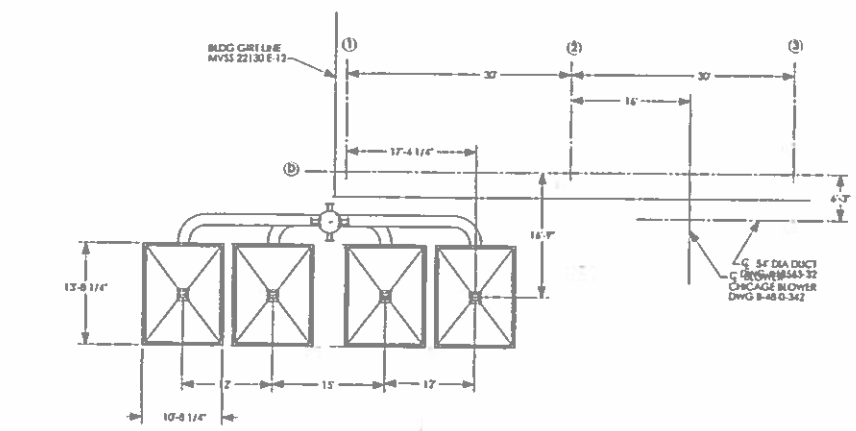
b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.

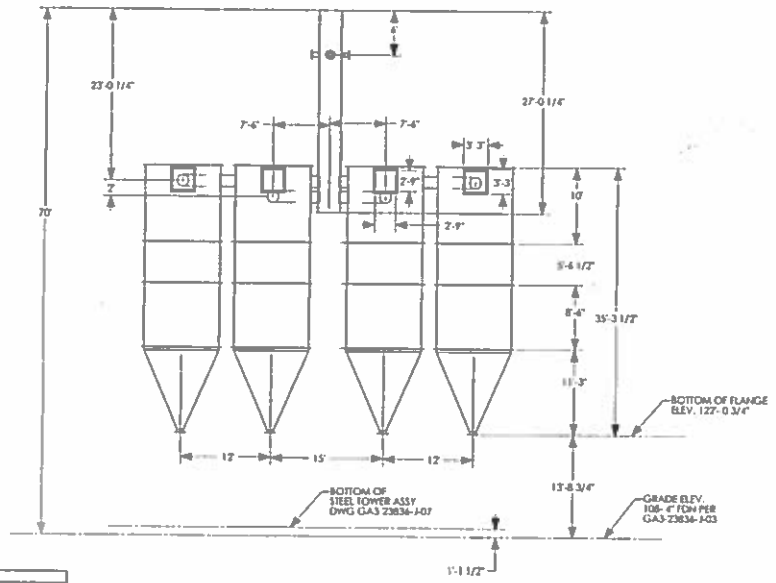
7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:

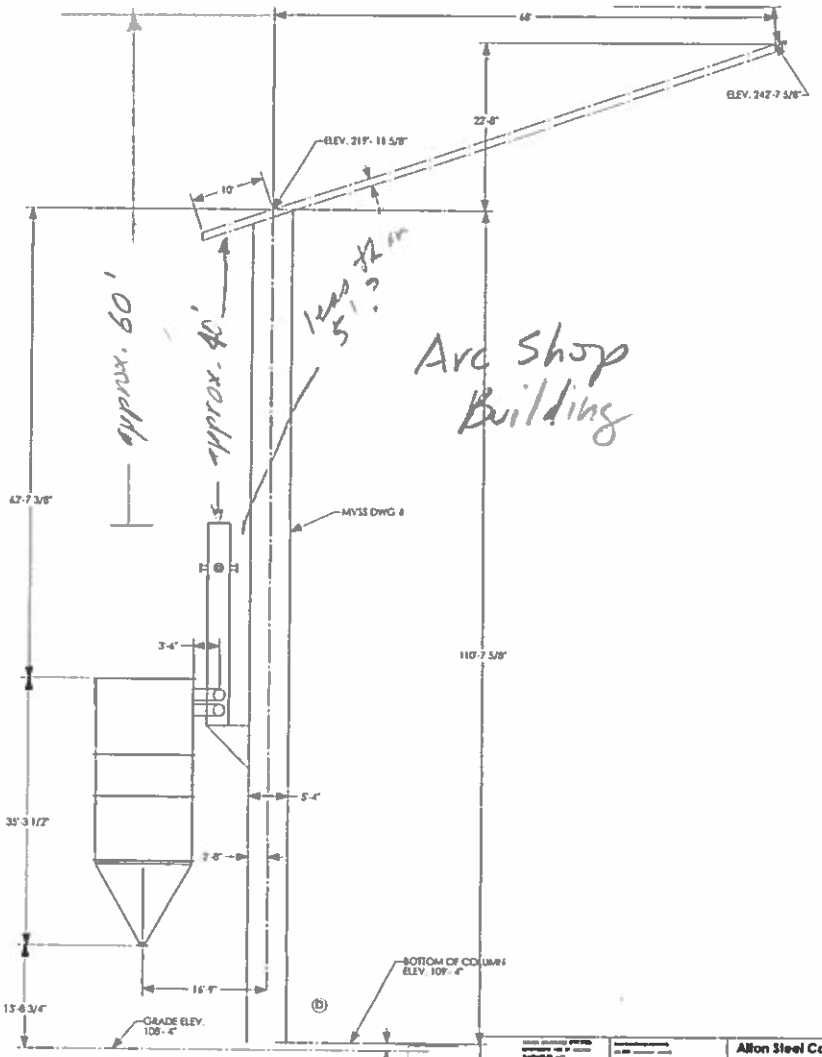
a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or

b. upon finding that any standard or special conditions have been violated, or

c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.







ASI

Alton Steel Company- ASI

MELT SHOP
LADLE FURNACE BAG HOUSE
GRIFFIN BAG HOUSE LOCATION
GENERAL ARRANGEMENT

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1/28/16
1:96
D-5779
REV.

Appendix E

Alton Township NAA Culpability Spreadsheet,

Alton Steel – New LMF Stack

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Alton Steel - New LMF Stack

Culpability Groups Description Key

0001PS/0002PS: Boiler 1 and Boiler 2 stacks from Portage De Sioux Plant in Missouri
0052AS Alton Steel LMF Single Stack
BACKGRND: Background SO_2 (derived from East St. Louis monitor)
0027AS1: Alton Steel EAF Baghouse 1 stack
0027AS2: Alton Steel EAF Baghouse 2 stack
0031AS: Alton Steel 14-inch Rolling Mill Reheat Furnace stack
0099AS: Alton Steel Caster
GBC_OL: The combined contribution from GBC Metals and Olin Corporation (20 stacks)
NM: National Maintenance & Repair (2 stacks)
ATF: Alton Water Treatment Facility (1 stack)
CPH: Conoco-Philips Hartford Plant (1 stack)
AM_SC_AN: The combined contribution from Alton Memorial Hospital (3 stacks), St. Anthony's Hospital (1 stack), and St. Claire's Hospital (3 stacks)
CHM: Charles E. Mahoney Plant (3 stacks)
WRB: WRB Refininery (62 stacks)

Contributions to the 99th percentile 1-Hour SO_2 concentration

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
746409.70	4307115.30	301.8	1-HR	4TH	143.5	139.9	0.02	17.89	0.009	0.009	0.001	0.000	0.002	0.015	0.0001	0.00001	0.0004	0.04	0.37
746441.10	4307088.70	301.3	1-HR	4TH	143.2	139.7	0.02	17.89	0.009	0.009	0.001	0.000	0.002	0.015	0.0001	0.00001	0.0004	0.04	0.37
746470.80	4307375.10	301.3	1-HR	4TH	141.7	138.3	0.03	20.70	0.030	0.030	0.001	0.000	0.002	0.015	0.0000	0.00001	0.0005	0.04	0.40
746472.50	4307062.20	301.1	1-HR	4TH	143.5	139.9	0.02	17.38	0.008	0.008	0.000	0.000	0.002	0.014	0.0001	0.00001	0.0004	0.03	0.33
746504.00	4307035.70	301.0	1-HR	4TH	143.4	139.8	0.02	17.38	0.008	0.008	0.000	0.000	0.002	0.014	0.0001	0.00001	0.0004	0.03	0.34
746395.90	4307154.70	300.9	1-HR	4TH	143.0	139.5	0.02	17.89	0.009	0.009	0.001	0.000	0.002	0.015	0.0001	0.00001	0.0005	0.04	0.37
746537.80	4307003.70	300.7	1-HR	4TH	142.4	138.9	0.02	18.92	0.010	0.010	0.001	0.000	0.002	0.015	0.0001	0.00001	0.0004	0.04	0.37
746412.20	4307200.10	300.5	1-HR	4TH	142.3	138.9	0.01	19.04	0.002	0.002	0.000	0.000	0.001	0.005	0.0000	0.00000	0.0001	0.01	0.15
746707.20	4306843.60	300.2	1-HR	4TH	142.6	138.9	0.02	18.15	0.011	0.012	0.001	0.000	0.002	0.020	0.0001	0.00002	0.0005	0.05	0.46
746571.70	4306971.70	300.2	1-HR	4TH	142.5	139.1	0.02	18.06	0.009	0.009	0.001	0.000	0.002	0.018	0.0001	0.00002	0.0004	0.04	0.42
746500.00	4307400.00	300.1	1-HR	4TH	141.8	138.4	0.00	19.79	0.000	0.000	0.000	0.000	0.001	0.005	0.0000	0.00000	0.0002	0.01	0.15
746484.00	4307420.60	300.0	1-HR	4TH	142.5	139.0	0.00	18.25	0.000	0.000	0.000	0.000	0.001	0.007	0.0001	0.00001	0.0002	0.02	0.19
746457.70	4307329.50	299.9	1-HR	4TH	140.8	137.6	0.03	20.96	0.031	0.031	0.001	0.000	0.002	0.015	0.0000	0.00001	0.0004	0.04	0.39
746428.50	4307245.50	299.9	1-HR	4TH	141.4	138.0	0.01	20.37	0.001	0.001	0.000	0.000	0.001	0.005	0.0000	0.00000	0.0001	0.01	0.14
746673.30	4306875.60	299.8	1-HR	4TH	142.4	138.7	0.02	18.06	0.011	0.012	0.001	0.001	0.003	0.022	0.0001	0.00002	0.0005	0.05	0.50
746639.50	4306907.60	299.6	1-HR	4TH	142.3	138.6	0.02	18.06	0.011	0.012	0.001	0.001	0.003	0.022	0.0001	0.00002	0.0005	0.05	0.50
746443.10	4307287.50	299.6	1-HR	4TH	140.8	137.5	0.02	20.70	0.030	0.030	0.001	0.000	0.002	0.015	0.0000	0.00001	0.0004	0.04	0.40
746605.60	4306939.70	299.4	1-HR	4TH	142.1	138.7	0.02	18.06	0.009	0.009	0.001	0.000	0.002	0.018	0.0001	0.00002	0.0004	0.04	0.42
746497.10	4307466.10	298.9	1-HR	4TH	141.1	137.7	0.01	19.79	0.001	0.001	0.000	0.000	0.001	0.009	0.0001	0.00001	0.0003	0.02	0.22
746500.00	4307300.00	298.1	1-HR	4TH	138.6	135.4	0.07	22.81	0.068	0.068	0.002	0.001	0.005	0.041	0.0002	0.00004	0.0042	0.11	0.93
746505.30	4307502.10	298.0	1-HR	4TH	142.5	138.9	0.00	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.00001	0.0005	0.02	0.19
746600.00	4307000.00	297.9	1-HR	4TH	141.0	137.5	0.02	18.92	0.009	0.009	0.001	0.000	0.002	0.016	0.0001	0.00001	0.0005	0.04	0.37
746500.00	4307100.00	297.7	1-HR	4TH	141.4	137.9	0.02	17.89	0.008	0.009	0.001	0.000	0.002	0.016	0.0001	0.00001	0.0005	0.04	0.37
746600.00	4307400.00	297.4	1-HR	4TH	140.4	137.0	0.01	19.79	0.000	0.001	0.000	0.000	0.001	0.009	0.0001	0.00001	0.0003	0.02	0.22
746500.00	4307200.00	297.4	1-HR	4TH	139.9	136.5	0.00	20.85	0.001	0.001	0.000	0.000	0.000	0.004	0.0000	0.00000	0.0001	0.01	0.13
746682.50	4307319.80	297.3	1-HR	4TH	140.6	137.2	0.03	18.95	0.030	0.030	0.001	0.001	0.002	0.016	0.0000	0.00001	0.0005	0.05	0.42
746600.00	4307300.00	296.8	1-HR	4TH	139.4	136.2	0.03	20.70	0.030	0.030	0.001	0.000	0.002	0.016	0.0000	0.00001	0.0004	0.04	0.40
746684.90	4307272.20	296.8	1-HR	4TH	139.3	136.1	0.03	20.96	0.031	0.031	0.001	0.000	0.002	0.015	0.0000	0.00001	0.0004	0.04	0.40

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
746704.70	4306891.20	296.8	1-HR	4TH	140.9	137.3	0.02	18.06	0.011	0.011	0.001	0.001	0.003	0.022	0.0001	0.00002	0.0005	0.05	0.50
746680.00	4307367.50	296.7	1-HR	4TH	140.9	137.4	0.00	18.25	0.000	0.000	0.000	0.000	0.001	0.007	0.0001	0.00001	0.0003	0.02	0.19
746700.00	4306900.00	296.5	1-HR	4TH	140.7	137.1	0.02	18.06	0.011	0.011	0.001	0.001	0.003	0.022	0.0001	0.00002	0.0005	0.05	0.50
746526.80	4307639.00	296.3	1-HR	4TH	139.7	136.3	0.02	19.95	0.021	0.021	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0025	0.03	0.32
746677.50	4307415.10	296.3	1-HR	4TH	140.9	137.5	0.01	17.63	0.000	0.000	0.000	0.000	0.001	0.009	0.0001	0.00001	0.0005	0.02	0.23
746513.40	4307538.10	296.2	1-HR	4TH	141.6	138.0	0.01	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.00001	0.0007	0.02	0.19
746600.00	4307200.00	295.9	1-HR	4TH	139.5	136.2	0.00	20.09	0.000	0.000	0.000	0.000	0.000	0.004	0.0000	0.00000	0.0001	0.01	0.12
746702.30	4306938.90	295.8	1-HR	4TH	139.9	136.5	0.02	18.92	0.009	0.009	0.001	0.000	0.002	0.016	0.0001	0.00001	0.0005	0.04	0.37
746600.00	4307100.00	295.7	1-HR	4TH	139.9	136.6	0.01	19.04	0.001	0.002	0.000	0.000	0.001	0.005	0.0000	0.00000	0.0001	0.01	0.15
746689.90	4307177.00	295.5	1-HR	4TH	139.3	136.0	0.00	20.09	0.000	0.000	0.000	0.000	0.000	0.004	0.0000	0.00000	0.0001	0.01	0.12
746687.40	4307224.60	295.5	1-HR	4TH	137.3	134.1	0.07	22.81	0.068	0.068	0.002	0.001	0.006	0.041	0.0002	0.00004	0.0046	0.12	0.96
746600.00	4307500.00	295.4	1-HR	4TH	141.2	137.6	0.01	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.00001	0.0008	0.02	0.19
746519.00	4307568.10	295.4	1-HR	4TH	141.0	137.6	0.00	16.40	0.001	0.001	0.000	0.000	0.001	0.008	0.0001	0.00001	0.0010	0.02	0.23
746524.60	4307598.20	295.3	1-HR	4TH	139.1	135.8	0.02	19.95	0.021	0.021	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0019	0.03	0.32
746692.40	4307129.30	295.3	1-HR	4TH	140.1	136.8	0.00	18.27	0.001	0.001	0.000	0.000	0.001	0.005	0.0000	0.00000	0.0001	0.01	0.15
746699.80	4306986.50	295.3	1-HR	4TH	140.5	137.0	0.02	17.38	0.007	0.007	0.001	0.000	0.002	0.015	0.0001	0.00001	0.0005	0.03	0.34
746529.10	4307679.90	295.1	1-HR	4TH	139.1	135.7	0.02	19.95	0.020	0.021	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0034	0.03	0.32
746675.00	4307462.70	294.9	1-HR	4TH	141.0	137.4	0.01	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.00001	0.0009	0.02	0.19
746600.00	4307600.00	294.8	1-HR	4TH	138.9	135.5	0.02	19.95	0.020	0.021	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0024	0.03	0.32
746697.30	4307034.10	294.5	1-HR	4TH	140.2	136.7	0.02	17.12	0.007	0.008	0.001	0.000	0.002	0.016	0.0001	0.00001	0.0007	0.04	0.37
746531.40	4307720.80	294.2	1-HR	4TH	138.6	135.2	0.02	19.95	0.020	0.021	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0047	0.03	0.32
746672.60	4307510.30	294.1	1-HR	4TH	140.4	137.1	0.01	16.40	0.001	0.001	0.000	0.000	0.001	0.008	0.0001	0.00001	0.0014	0.02	0.23
746667.60	4307605.60	293.9	1-HR	4TH	138.5	135.1	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0030	0.03	0.33
746694.80	4307081.70	293.9	1-HR	4TH	139.3	136.1	0.00	18.27	0.001	0.001	0.000	0.000	0.001	0.005	0.0000	0.00000	0.0001	0.01	0.15
746670.10	4307558.00	293.7	1-HR	4TH	138.3	135.0	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0022	0.03	0.33
746532.70	4307767.00	293.4	1-HR	4TH	138.2	134.8	0.02	19.95	0.020	0.021	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0068	0.03	0.32
746666.10	4307650.80	293.2	1-HR	4TH	138.1	134.7	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0041	0.03	0.33
746600.00	4307700.00	293.0	1-HR	4TH	138.0	134.6	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0049	0.03	0.32
746675.80	4307652.20	292.9	1-HR	4TH	138.0	134.6	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0043	0.03	0.33
746534.00	4307813.10	292.9	1-HR	4TH	138.1	134.7	0.02	19.68	0.020	0.020	0.001	0.000	0.002	0.011	0.0001	0.00001	0.0089	0.04	0.36
746531.60	4307894.90	292.8	1-HR	4TH	137.1	133.8	0.01	21.46	0.005	0.005	0.000	0.000	0.001	0.009	0.0002	0.00001	0.0147	0.03	0.29
746532.80	4307854.00	292.7	1-HR	4TH	137.1	133.8	0.01	21.46	0.005	0.005	0.000	0.000	0.001	0.009	0.0002	0.00001	0.0114	0.03	0.29
746529.20	4307976.60	292.2	1-HR	4TH	136.6	133.2	0.01	22.04	0.005	0.005	0.000	0.000	0.001	0.011	0.0004	0.00001	0.0270	0.03	0.31
746530.40	4307935.70	292.2	1-HR	4TH	137.4	133.9	0.01	20.52	0.004	0.005	0.000	0.000	0.001	0.010	0.0003	0.00001	0.0208	0.03	0.31
746717.40	4307653.20	292.2	1-HR	4TH	137.6	134.2	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0048	0.03	0.33
746673.50	4307698.50	291.9	1-HR	4TH	137.4	134.1	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0058	0.03	0.32
746600.00	4307800.00	291.7	1-HR	4TH	137.4	134.1	0.02	19.68	0.020	0.020	0.001	0.000	0.002	0.011	0.0001	0.00001	0.0093	0.04	0.36
746600.00	4307900.00	291.5	1-HR	4TH	137.0	133.6	0.01	20.52	0.004	0.004	0.000	0.000	0.001	0.010	0.0003	0.00001	0.0183	0.03	0.31
746671.20	4307744.70	291.4	1-HR	4TH	137.3	134.0	0.02	19.68	0.020	0.020	0.001	0.000	0.002	0.011	0.0001	0.00001	0.0074	0.04	0.37
746668.80	4307790.90	291.0	1-HR	4TH	136.0	132.7	0.02	21.76	0.022	0.023	0.001	0.000	0.002	0.015	0.0002	0.00001	0.0116	0.05	0.47
746525.40	4308157.80	291.0	1-HR	4TH	136.8	133.6	0.01	20.33	0.002	0.002	0.000	0.000	0.001	0.007	0.0003	0.00001	0.0313	0.02	0.22
746564.00	4308183.00	291.0	1-HR	4TH	137.2	133.8	0.01	19.60	0.002	0.003	0.000	0.000	0.001	0.008	0.0003	0.00001	0.0250	0.02	0.25
746528.00	4308017.50	290.8	1-HR	4TH	135.9	132.4	0.01	22.04	0.005	0.005	0.000	0.000	0.001	0.011	0.0004	0.00001	0.0290	0.03	0.31
746759.10	4307654.20	290.6	1-HR	4TH	136.8	133.4	0.02	19.95	0.019	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0053	0.03	0.33
746665.10	4307883.80	290.4	1-HR	4TH	135.9	132.6	0.01	21.46	0.004	0.004	0.001	0.000	0.001	0.009	0.0002	0.00001	0.0155	0.03	0.30
746666.50	4307837.20	290.2	1-HR	4TH	136.9	133.6	0.01	19.42	0.004	0.004	0.001	0.000	0.001	0.009	0.0002	0.00001	0.0127	0.02	0.27
746597.40	4308185.60	290.0	1-HR	4TH	137.1	133.6	0.01	18.93	0.002	0.003	0.000	0.000	0.001	0.009	0.0004	0.00001	0.0238	0.02	0.28
746667.30	4307914.20	289.8	1-HR	4TH	135.9	132.8	0.01	20.61	0.004	0.004	0.001	0.000	0.001	0.011	0.0002	0.00001	0.0154	0.03	0.35
746798.40	4307655.90	289.7	1-HR	4TH	136.3	133.0	0.02	19.95	0.019	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0058	0.03	0.33
746525.10	4308130.40	289.7	1-HR	4TH	136.1	133.0	0.01	20.33	0.002	0.002	0.000	0.000	0.001	0.007	0.0002	0.00001	0.0307	0.02	0.22
746669.40	4307944.60	289.5	1-HR	4TH	135.2	131.8	0.01	22.04	0.004	0.004	0.001	0.000	0.001	0.011	0.0004	0.00001	0.0243	0.03	0.32
746600.00	4308000.00	289.3	1-HR	4TH	135.2	131.7	0.01	22.04	0.004	0.005	0.000	0.000	0.001	0.011	0.0004	0.00001	0.0270	0.03	0.32
746526.40	4308060.20	289.3	1-HR	4TH	135.2	131.7	0.01	22.04	0.005	0.005	0.000	0.000	0.001	0.011	0.0004	0.00001	0.0297	0.03	0.31

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
746524.80	4308103.00	288.9	1-HR	4TH	134.8	131.7	0.01	22.13	0.005	0.005	0.000	0.000	0.001	0.008	0.0002	0.00001	0.0265	0.02	0.26
746837.80	4307657.70	288.9	1-HR	4TH	135.9	132.6	0.02	19.95	0.019	0.019	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0064	0.03	0.33
746629.20	4308187.30	288.9	1-HR	4TH	136.5	133.0	0.01	18.93	0.002	0.002	0.000	0.000	0.001	0.009	0.0004	0.00001	0.0225	0.02	0.28
746667.00	4308131.90	288.3	1-HR	4TH	135.4	132.3	0.01	20.33	0.001	0.002	0.000	0.000	0.001	0.007	0.0003	0.00001	0.0260	0.02	0.22
746668.50	4307981.80	288.3	1-HR	4TH	134.7	131.2	0.01	22.04	0.004	0.004	0.001	0.000	0.001	0.011	0.0004	0.00001	0.0255	0.03	0.32
746865.70	4307658.00	288.3	1-HR	4TH	135.6	132.3	0.02	19.95	0.018	0.019	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0067	0.03	0.33
746660.90	4308189.00	287.9	1-HR	4TH	136.0	132.5	0.01	18.93	0.002	0.002	0.000	0.000	0.001	0.01	0.0004	0.00001	0.0213	0.02	0.28
746694.20	4308129.80	287.7	1-HR	4TH	135.6	132.3	0.01	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.00001	0.0219	0.02	0.25
746927.80	4307661.30	287.7	1-HR	4TH	135.4	132.1	0.02	19.68	0.018	0.018	0.001	0.001	0.002	0.012	0.0001	0.00001	0.0071	0.04	0.37
746893.70	4307658.40	287.7	1-HR	4TH	135.3	132.0	0.02	19.95	0.018	0.019	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0071	0.03	0.33
746600.00	4308100.00	287.5	1-HR	4TH	134.1	130.9	0.01	22.13	0.004	0.005	0.000	0.000	0.001	0.008	0.0002	0.00001	0.0243	0.02	0.26
747014.20	4307598.90	287.5	1-HR	4TH	135.2	131.9	0.03	19.95	0.017	0.018	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0063	0.03	0.33
746962.00	4307664.10	287.4	1-HR	4TH	135.3	132.0	0.02	19.68	0.017	0.018	0.001	0.001	0.002	0.012	0.0001	0.00001	0.0077	0.04	0.38
746667.50	4308019.00	287.1	1-HR	4TH	134.0	130.6	0.01	22.04	0.004	0.004	0.001	0.000	0.001	0.011	0.0004	0.00001	0.0258	0.03	0.32
747055.10	4307583.00	286.9	1-HR	4TH	134.9	131.6	0.03	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0062	0.03	0.33
746724.80	4308127.60	286.8	1-HR	4TH	135.1	131.8	0.01	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.00001	0.0210	0.02	0.25
747023.80	4307624.10	286.8	1-HR	4TH	134.9	131.5	0.03	19.95	0.017	0.017	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0073	0.03	0.33
746667.20	4308094.30	286.8	1-HR	4TH	134.0	130.9	0.01	21.55	0.004	0.004	0.000	0.000	0.001	0.009	0.0002	0.00001	0.0249	0.02	0.28
746996.20	4307667.00	286.7	1-HR	4TH	134.9	131.6	0.03	19.68	0.017	0.017	0.001	0.001	0.002	0.012	0.0001	0.00001	0.0082	0.04	0.38
747096.10	4307567.20	286.5	1-HR	4TH	134.7	131.4	0.03	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0061	0.03	0.34
746710.10	4308187.70	286.4	1-HR	4TH	135.3	131.8	0.01	18.93	0.002	0.002	0.000	0.000	0.001	0.009	0.0004	0.00001	0.0198	0.02	0.28
747057.80	4307611.40	286.3	1-HR	4TH	134.6	131.3	0.03	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0072	0.03	0.33
746667.30	4308056.60	286.2	1-HR	4TH	133.5	130.3	0.01	22.13	0.004	0.004	0.000	0.000	0.001	0.008	0.0002	0.00001	0.0219	0.02	0.26
746755.50	4308125.30	286.1	1-HR	4TH	134.7	131.4	0.01	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.00001	0.0202	0.02	0.25
747091.80	4307598.70	286.0	1-HR	4TH	134.4	131.1	0.03	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0071	0.03	0.34
747137.10	4307551.30	286.0	1-HR	4TH	134.4	131.1	0.03	19.95	0.015	0.016	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0060	0.03	0.34
747035.80	4307671.60	285.7	1-HR	4TH	134.0	130.7	0.03	20.50	0.016	0.017	0.001	0.001	0.002	0.012	0.0002	0.00001	0.0106	0.04	0.41
747125.80	4307586.00	285.7	1-HR	4TH	134.3	131.0	0.03	19.95	0.015	0.016	0.002	0.001	0.001	0.010	0.0001	0.00001	0.0070	0.03	0.34
747178.00	4307535.50	285.4	1-HR	4TH	134.1	130.9	0.03	19.95	0.014	0.016	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0059	0.03	0.34
746759.20	4308186.50	285.3	1-HR	4TH	134.7	131.4	0.01	18.86	0.003	0.003	0.001	0.000	0.001	0.010	0.0003	0.00001	0.0244	0.03	0.30
747219.00	4307519.60	284.9	1-HR	4TH	133.9	130.6	0.03	19.95	0.014	0.015	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0058	0.03	0.34
746800.70	4308123.30	284.8	1-HR	4TH	134.1	130.8	0.01	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.00001	0.0191	0.02	0.25
747259.40	4307457.10	284.8	1-HR	4TH	133.8	130.6	0.03	19.95	0.014	0.015	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0046	0.03	0.34
746808.40	4308185.20	284.6	1-HR	4TH	133.9	130.9	0.02	19.30	0.006	0.007	0.001	0.000	0.002	0.014	0.0002	0.00001	0.0249	0.04	0.41
747069.90	4307682.90	284.5	1-HR	4TH	133.4	130.1	0.03	20.50	0.015	0.016	0.001	0.001	0.002	0.012	0.0002	0.00001	0.0113	0.04	0.41
747260.00	4307503.80	284.4	1-HR	4TH	133.6	130.4	0.03	19.95	0.013	0.014	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0057	0.03	0.34
746857.60	4308184.00	284.3	1-HR	4TH	133.7	130.7	0.02	19.30	0.006	0.006	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0238	0.04	0.42
747143.30	4307629.30	284.2	1-HR	4TH	133.2	129.9	0.03	20.50	0.014	0.015	0.002	0.001	0.002	0.013	0.0002	0.00001	0.0100	0.04	0.41
747296.30	4307438.80	284.1	1-HR	4TH	133.5	130.2	0.03	19.95	0.013	0.015	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0044	0.03	0.34
746906.80	4308182.70	283.8	1-HR	4TH	133.5	130.5	0.02	19.30	0.005	0.006	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0228	0.04	0.42
747179.00	4307615.80	283.8	1-HR	4TH	133.0	129.7	0.03	20.50	0.013	0.015	0.002	0.001	0.002	0.013	0.0002	0.00001	0.0098	0.04	0.41
747200.00	4307600.00	283.8	1-HR	4TH	133.0	129.7	0.03	20.50	0.013	0.014	0.002	0.001	0.002	0.013	0.0002	0.00001	0.0095	0.04	0.41
747333.20	4307420.40	283.7	1-HR	4TH	133.2	130.0	0.03	19.95	0.013	0.014	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0043	0.03	0.34
746845.90	4308121.30	283.6	1-HR	4TH	133.9	130.4	0.01	18.93	0.001	0.002	0.000	0.000	0.001	0.009	0.0003	0.00001	0.0196	0.02	0.29
747300.00	4307500.00	283.6	1-HR	4TH	133.2	130.0	0.03	19.95	0.012	0.014	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0059	0.03	0.34
747251.20	4307552.80	283.5	1-HR	4TH	133.2	129.9	0.03	19.95	0.012	0.014	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0071	0.03	0.34
746955.90	4308181.40	283.4	1-HR	4TH	133.3	130.3	0.02	19.30	0.005	0.005	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0219	0.05	0.42
747214.60	4307602.20	283.3	1-HR	4TH	132.8	129.5	0.03	20.50	0.013	0.014	0.002	0.001	0.002	0.013	0.0002	0.00001	0.0097	0.04	0.41
747104.00	4307694.10	283.3	1-HR	4TH	132.1	128.8	0.03	21.76	0.015	0.017	0.002	0.001	0.002	0.015	0.0002	0.00001	0.0115	0.05	0.49
747370.10	4307402.10	283.2	1-HR	4TH	132.9	129.6	0.03	20.26	0.012	0.014	0.002	0.002	0.002	0.013	0.0002	0.00001	0.0069	0.04	0.39
747005.10	4308180.20	283.0	1-HR	4TH	133.1	130.1	0.02	19.30	0.004	0.005	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0211	0.05	0.42
747407.00	4307383.70	283.0	1-HR	4TH	132.7	129.4	0.03	20.26	0.012	0.013	0.002	0.002	0.002	0.013	0.0002	0.00001	0.0068	0.04	0.39
747250.30	4307588.60	282.8	1-HR	4TH	132.5	129.2	0.03	20.50	0.012	0.013	0.002	0.001	0.002	0.013	0.0002	0.00001	0.0095	0.04	0.42

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
747400.00	4307400.00	282.6	1-HR	4TH	132.7	129.5	0.03	19.95	0.012	0.013	0.002	0.002	0.002	0.010	0.0001	0.00001	0.0043	0.03	0.35
747128.30	4307700.20	282.6	1-HR	4TH	131.7	128.5	0.03	21.76	0.014	0.016	0.002	0.001	0.002	0.015	0.0002	0.00001	0.0118	0.05	0.49
747054.30	4308178.90	282.5	1-HR	4TH	132.9	129.8	0.02	19.30	0.004	0.005	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0203	0.05	0.42
747249.30	4307599.10	282.5	1-HR	4TH	132.4	129.1	0.03	20.50	0.012	0.013	0.002	0.001	0.002	0.013	0.0002	0.00001	0.0098	0.04	0.42
747451.40	4307367.90	282.5	1-HR	4TH	132.5	129.2	0.03	20.26	0.012	0.013	0.002	0.002	0.002	0.013	0.0002	0.00001	0.0068	0.04	0.39
746891.80	4308119.40	282.2	1-HR	4TH	133.2	129.8	0.01	18.93	0.001	0.001	0.001	0.000	0.001	0.009	0.0003	0.00001	0.0187	0.02	0.29
747154.10	4307712.20	282.1	1-HR	4TH	132.6	129.4	0.03	19.42	0.014	0.015	0.002	0.001	0.002	0.015	0.0002	0.00001	0.0113	0.05	0.50
747300.70	4307555.10	282.0	1-HR	4TH	132.5	129.3	0.03	19.68	0.011	0.012	0.002	0.002	0.002	0.012	0.0001	0.00001	0.0071	0.04	0.39
747495.70	4307352.00	281.9	1-HR	4TH	132.2	128.9	0.03	20.26	0.011	0.012	0.002	0.002	0.002	0.013	0.0002	0.00001	0.0068	0.04	0.39
747103.50	4308177.70	281.8	1-HR	4TH	133.2	130.0	0.02	18.13	0.004	0.004	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0166	0.05	0.42
747179.80	4307724.30	281.7	1-HR	4TH	132.4	129.3	0.03	19.42	0.013	0.014	0.002	0.001	0.002	0.015	0.0002	0.00001	0.0118	0.05	0.50
747400.00	4307500.00	281.7	1-HR	4TH	132.3	129.0	0.03	19.95	0.010	0.011	0.003	0.002	0.002	0.010	0.0001	0.00001	0.0067	0.04	0.34
747248.10	4307630.90	281.6	1-HR	4TH	131.9	128.6	0.03	20.50	0.011	0.013	0.002	0.001	0.002	0.013	0.0002	0.00001	0.0108	0.04	0.41
747540.10	4307336.10	281.4	1-HR	4TH	131.9	128.7	0.03	20.26	0.011	0.012	0.002	0.002	0.002	0.013	0.0002	0.00001	0.0068	0.04	0.39
747204.60	4307740.00	281.3	1-HR	4TH	132.4	129.2	0.02	19.42	0.002	0.002	0.001	0.001	0.001	0.009	0.0002	0.00001	0.0122	0.03	0.28
747247.40	4307645.40	281.2	1-HR	4TH	131.7	128.4	0.03	20.50	0.011	0.013	0.002	0.001	0.002	0.013	0.0002	0.00001	0.0112	0.04	0.41
746937.70	4308117.50	281.1	1-HR	4TH	132.6	129.2	0.01	18.93	0.001	0.001	0.001	0.000	0.001	0.009	0.0003	0.00001	0.0179	0.02	0.29
747500.00	4307400.00	281.0	1-HR	4TH	131.9	128.7	0.03	19.95	0.010	0.011	0.003	0.003	0.002	0.010	0.0001	0.00001	0.0050	0.04	0.35
747152.60	4308176.40	280.9	1-HR	4TH	132.7	129.6	0.02	18.13	0.003	0.004	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0160	0.05	0.42
747584.50	4307320.20	280.9	1-HR	4TH	131.7	128.4	0.03	20.26	0.011	0.012	0.002	0.003	0.002	0.013	0.0002	0.00001	0.0069	0.04	0.40
747350.30	4307557.40	280.9	1-HR	4TH	131.5	128.3	0.03	20.50	0.010	0.011	0.003	0.002	0.002	0.013	0.0002	0.00001	0.0093	0.04	0.42
747243.80	4307715.50	280.7	1-HR	4TH	131.9	128.8	0.03	19.42	0.011	0.013	0.003	0.002	0.002	0.015	0.0002	0.00001	0.0118	0.05	0.50
747229.40	4307755.70	280.7	1-HR	4TH	132.1	128.9	0.02	19.42	0.002	0.002	0.001	0.001	0.001	0.009	0.0002	0.00001	0.0127	0.03	0.28
747243.70	4307738.00	280.6	1-HR	4TH	132.0	128.8	0.02	19.42	0.001	0.002	0.001	0.001	0.001	0.009	0.0002	0.00001	0.0123	0.03	0.28
747245.60	4307691.70	280.6	1-HR	4TH	131.8	128.7	0.03	19.42	0.011	0.013	0.003	0.002	0.002	0.015	0.0002	0.00001	0.0111	0.05	0.50
747246.00	4307673.20	280.6	1-HR	4TH	130.7	127.5	0.03	21.76	0.011	0.013	0.003	0.002	0.002	0.015	0.0002	0.00001	0.0116	0.05	0.50
747241.70	4307757.80	280.4	1-HR	4TH	131.9	128.7	0.02	19.42	0.001	0.002	0.001	0.001	0.001	0.009	0.0002	0.00001	0.0128	0.03	0.28
747628.80	4307304.30	280.3	1-HR	4TH	131.4	128.1	0.03	20.26	0.011	0.011	0.002	0.003	0.002	0.013	0.0002	0.00001	0.0069	0.04	0.40
747241.80	4307784.30	280.1	1-HR	4TH	131.8	128.6	0.02	19.42	0.001	0.002	0.001	0.001	0.001	0.009	0.0002	0.00001	0.0135	0.03	0.28
746983.50	4308115.60	280.1	1-HR	4TH	132.7	129.5	0.01	17.62	0.001	0.001	0.001	0.000	0.001	0.008	0.0003	0.00001	0.0187	0.02	0.24
747201.80	4308175.20	279.9	1-HR	4TH	131.4	128.2	0.05	19.41	0.022	0.025	0.002	0.001	0.003	0.022	0.0003	0.00002	0.0157	0.09	0.65
747227.90	4307799.60	279.9	1-HR	4TH	131.4	128.1	0.02	20.00	0.002	0.002	0.001	0.001	0.001	0.010	0.0004	0.00001	0.0178	0.03	0.31
747673.20	4307288.40	279.8	1-HR	4TH	131.1	127.9	0.03	20.26	0.011	0.011	0.002	0.003	0.002	0.013	0.0002	0.00001	0.0069	0.04	0.40
747399.90	4307559.60	279.7	1-HR	4TH	131.0	127.7	0.03	20.50	0.009	0.010	0.003	0.003	0.002	0.013	0.0002	0.00001	0.0096	0.04	0.42
747500.00	4307500.00	279.6	1-HR	4TH	130.9	127.7	0.04	20.50	0.008	0.010	0.003	0.004	0.002	0.013	0.0002	0.00001	0.0087	0.04	0.42
747029.40	4308113.70	279.5	1-HR	4TH	132.4	129.2	0.01	17.62	0.001	0.001	0.001	0.000	0.001	0.008	0.0003	0.00001	0.0180	0.02	0.24
747600.00	4307400.00	279.3	1-HR	4TH	131.0	127.8	0.04	19.95	0.009	0.010	0.003	0.004	0.002	0.010	0.0001	0.00001	0.0057	0.04	0.35
747717.50	4307272.50	279.2	1-HR	4TH	130.8	127.6	0.03	20.26	0.011	0.011	0.002	0.003	0.002	0.013	0.0002	0.00001	0.0069	0.04	0.40
747251.00	4308173.90	279.1	1-HR	4TH	131.0	127.8	0.05	19.41	0.020	0.023	0.002	0.001	0.003	0.022	0.0003	0.00002	0.0152	0.09	0.65
747700.00	4307300.00	279.0	1-HR	4TH	130.7	127.5	0.03	20.26	0.010	0.011	0.002	0.003	0.002	0.013	0.0002	0.00001	0.0075	0.04	0.40
747075.30	4308111.90	279.0	1-HR	4TH	132.2	128.9	0.01	17.62	0.001	0.001	0.001	0.000	0.001	0.008	0.0003	0.00001	0.0173	0.02	0.24
747157.10	4308039.20	278.8	1-HR	4TH	131.0	127.8	0.01	19.60	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.00001	0.0150	0.02	0.25
747158.50	4308003.70	278.7	1-HR	4TH	130.5	127.5	0.01	20.33	0.001	0.001	0.001	0.001	0.001	0.007	0.0002	0.00001	0.0176	0.02	0.23
747449.50	4307561.90	278.6	1-HR	4TH	130.4	127.2	0.04	20.50	0.008	0.009	0.003	0.003	0.002	0.013	0.0002	0.00001	0.0100	0.04	0.42
747761.90	4307256.60	278.6	1-HR	4TH	130.5	127.3	0.03	20.26	0.011	0.011	0.002	0.003	0.002	0.013	0.0002	0.00001	0.0069	0.04	0.40
747121.20	4308110.00	278.5	1-HR	4TH	131.5	128.5	0.02	18.06	0.003	0.003	0.001	0.001	0.002	0.011	0.0002	0.00001	0.0180	0.03	0.36
747239.90	4307830.60	278.4	1-HR	4TH	129.6	126.3	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.00001	0.0179	0.03	0.33
747226.40	4307843.60	278.3	1-HR	4TH	129.6	126.3	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.00001	0.0180	0.03	0.33
747200.00	4308000.00	278.2	1-HR	4TH	130.3	127.3	0.01	20.33	0.001	0.001	0.001	0.001	0.001	0.007	0.0002	0.00001	0.0172	0.02	0.23
747806.30	4307240.70	278.1	1-HR	4TH	130.3	127.0	0.03	20.26	0.011	0.011	0.002	0.003	0.002	0.013	0.0002	0.00001	0.0069	0.04	0.40
747167.00	4308108.10	278.1	1-HR	4TH	130.6	127.6	0.02	19.30	0.003	0.003	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0208	0.05	0.43
747181.70	4308050.60	277.9	1-HR	4TH	131.0	127.6	0.01	18.93	0.001	0.001	0.001	0.001	0.001	0.009	0.0003	0.00001	0.0162	0.03	0.29
747300.10	4308172.60	277.7	1-HR	4TH	130.9	127.5	0.05	18.53	0.016	0.019	0.002	0.001	0.003	0.020	0.0004	0.00002	0.0130	0.08	0.58

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
747212.90	4308106.20	277.6	1-HR	4TH	130.4	127.4	0.02	19.30	0.003	0.003	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0203	0.05	0.43
747228.70	4308108.50	277.6	1-HR	4TH	130.4	127.4	0.02	19.30	0.002	0.003	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0201	0.05	0.43
747600.00	4307500.00	277.5	1-HR	4TH	129.8	126.6	0.04	20.50	0.007	0.008	0.003	0.007	0.002	0.013	0.0002	0.00001	0.0093	0.04	0.43
747850.60	4307224.80	277.5	1-HR	4TH	130.9	127.8	0.03	18.15	0.012	0.012	0.001	0.003	0.002	0.015	0.0002	0.00001	0.0063	0.04	0.46
747700.00	4307400.00	277.5	1-HR	4TH	130.1	126.9	0.04	19.95	0.008	0.009	0.002	0.006	0.002	0.010	0.0001	0.00001	0.0063	0.04	0.35
747499.00	4307564.20	277.5	1-HR	4TH	129.8	126.6	0.04	20.50	0.007	0.008	0.004	0.004	0.002	0.013	0.0002	0.00001	0.0103	0.04	0.42
747232.50	4308015.90	277.4	1-HR	4TH	130.3	127.2	0.01	19.60	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.00001	0.0144	0.02	0.25
747159.80	4307968.20	277.4	1-HR	4TH	129.2	126.3	0.01	21.55	0.001	0.002	0.001	0.001	0.001	0.009	0.0002	0.00001	0.0169	0.02	0.28
747200.50	4308053.00	277.3	1-HR	4TH	131.3	128.1	0.01	17.62	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.00001	0.0173	0.02	0.24
747253.40	4308108.50	277.3	1-HR	4TH	130.2	127.3	0.02	19.30	0.002	0.003	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0197	0.05	0.43
747800.00	4307300.00	277.1	1-HR	4TH	129.8	126.6	0.03	20.26	0.010	0.010	0.002	0.004	0.002	0.013	0.0003	0.00001	0.0084	0.04	0.40
747216.30	4308054.20	277.0	1-HR	4TH	131.1	127.9	0.01	17.62	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.00001	0.0170	0.02	0.24
747234.30	4307969.60	277.0	1-HR	4TH	129.7	126.7	0.01	20.33	0.001	0.001	0.001	0.001	0.001	0.007	0.0002	0.00001	0.0168	0.02	0.23
747298.90	4308105.20	276.9	1-HR	4TH	130.0	127.1	0.02	19.30	0.002	0.002	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0193	0.05	0.43
747161.20	4307932.70	276.8	1-HR	4TH	128.7	125.7	0.01	22.13	0.002	0.002	0.001	0.001	0.001	0.008	0.0002	0.00001	0.0146	0.02	0.27
747895.00	4307209.00	276.8	1-HR	4TH	130.6	127.5	0.03	18.15	0.012	0.012	0.001	0.002	0.002	0.015	0.0002	0.00001	0.0063	0.04	0.46
747238.10	4307876.90	276.8	1-HR	4TH	128.8	125.5	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.00001	0.0177	0.03	0.33
747224.80	4307887.50	276.7	1-HR	4TH	128.8	125.5	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.00001	0.0178	0.03	0.33
747214.60	4308080.20	276.7	1-HR	4TH	131.0	127.8	0.01	17.62	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.00001	0.0163	0.02	0.24
747344.30	4308102.00	276.6	1-HR	4TH	129.9	126.9	0.02	19.30	0.002	0.002	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0189	0.05	0.43
747230.60	4308062.20	276.5	1-HR	4TH	130.9	127.7	0.01	17.62	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.00001	0.0166	0.02	0.24
747185.00	4307931.00	276.5	1-HR	4TH	128.5	125.5	0.01	22.13	0.002	0.002	0.001	0.001	0.001	0.008	0.0002	0.00001	0.0145	0.02	0.27
747548.60	4307566.50	276.2	1-HR	4TH	129.2	126.0	0.04	20.50	0.006	0.007	0.004	0.006	0.002	0.013	0.0002	0.00001	0.0105	0.04	0.42
747937.00	4307210.10	276.1	1-HR	4TH	129.3	126.1	0.03	20.26	0.012	0.012	0.002	0.002	0.002	0.013	0.0002	0.00001	0.0073	0.04	0.41
747349.30	4308171.40	276.1	1-HR	4TH	129.9	126.5	0.02	19.37	0.001	0.001	0.001	0.001	0.002	0.010	0.0004	0.00001	0.0100	0.04	0.31
747223.30	4307931.40	276.0	1-HR	4TH	128.3	125.2	0.02	22.13	0.002	0.002	0.001	0.001	0.001	0.008	0.0002	0.00001	0.0142	0.02	0.27
747389.70	4308098.80	275.8	1-HR	4TH	130.1	127.0	0.03	18.13	0.002	0.002	0.002	0.001	0.002	0.014	0.0003	0.00001	0.0156	0.05	0.43
747400.00	4308100.00	275.8	1-HR	4TH	130.1	127.0	0.03	18.13	0.002	0.002	0.002	0.001	0.002	0.014	0.0003	0.00001	0.0155	0.05	0.43
747236.20	4307923.20	275.7	1-HR	4TH	128.1	125.1	0.02	22.13	0.002	0.002	0.001	0.001	0.001	0.008	0.0002	0.00001	0.0141	0.02	0.27
747800.00	4307400.00	275.4	1-HR	4TH	128.7	125.5	0.04	20.77	0.008	0.008	0.003	0.007	0.002	0.011	0.0002	0.00001	0.0084	0.04	0.39
747700.00	4307500.00	275.3	1-HR	4TH	128.7	125.5	0.04	20.50	0.006	0.007	0.003	0.013	0.002	0.013	0.0002	0.00001	0.0097	0.04	0.43
747978.90	4307211.30	275.3	1-HR	4TH	128.8	125.6	0.03	20.26	0.012	0.012	0.002	0.002	0.002	0.013	0.0002	0.00001	0.0077	0.04	0.41
747432.00	4308092.60	275.2	1-HR	4TH	129.0	125.9	0.06	19.41	0.009	0.012	0.003	0.002	0.004	0.023	0.0003	0.00002	0.0153	0.09	0.67
747900.00	4307300.00	275.2	1-HR	4TH	129.0	125.8	0.04	19.95	0.010	0.010	0.003	0.004	0.002	0.011	0.0001	0.00001	0.0055	0.04	0.36
747598.20	4307568.80	275.1	1-HR	4TH	128.6	125.4	0.04	20.50	0.006	0.007	0.004	0.009	0.002	0.013	0.0002	0.00001	0.0108	0.04	0.43
747474.40	4308086.40	275.1	1-HR	4TH	128.9	125.8	0.06	19.41	0.008	0.010	0.003	0.002	0.004	0.023	0.0003	0.00002	0.0151	0.09	0.67
747500.00	4308100.00	274.6	1-HR	4TH	128.7	125.6	0.06	19.41	0.007	0.009	0.003	0.002	0.004	0.022	0.0003	0.00002	0.0147	0.09	0.66
747398.50	4308170.10	274.4	1-HR	4TH	129.0	125.6	0.02	19.37	0.001	0.001	0.001	0.001	0.002	0.010	0.0004	0.00001	0.0096	0.04	0.31
748020.90	4307212.40	274.4	1-HR	4TH	128.4	125.2	0.03	20.26	0.012	0.012	0.003	0.002	0.002	0.013	0.0002	0.00001	0.0080	0.04	0.41
747647.70	4307571.10	274.0	1-HR	4TH	128.1	124.9	0.04	20.50	0.005	0.006	0.003	0.015	0.002	0.013	0.0002	0.00001	0.0109	0.04	0.43
747522.80	4308077.70	273.8	1-HR	4TH	128.3	125.2	0.06	19.41	0.006	0.008	0.003	0.003	0.004	0.023	0.0003	0.00002	0.0148	0.09	0.68
748062.80	4307213.60	273.4	1-HR	4TH	127.9	124.7	0.03	20.26	0.012	0.012	0.004	0.002	0.002	0.013	0.0003	0.00001	0.0084	0.04	0.41
747800.00	4307500.00	273.4	1-HR	4TH	127.8	124.6	0.04	20.50	0.005	0.006	0.010	0.010	0.002	0.013	0.0002	0.00001	0.0101	0.04	0.43
748114.80	4307131.20	273.3	1-HR	4TH	128.8	125.8	0.03	18.15	0.015	0.014	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0064	0.04	0.47
747442.10	4308168.40	273.3	1-HR	4TH	128.6	125.3	0.01	18.92	0.001	0.001	0.001	0.001	0.002	0.012	0.0003	0.00001	0.0090	0.03	0.39
748000.00	4307300.00	273.2	1-HR	4TH	128.0	124.8	0.04	19.95	0.010	0.010	0.005	0.003	0.002	0.011	0.0001	0.00001	0.0060	0.04	0.36
747900.00	4307400.00	273.0	1-HR	4TH	127.6	124.4	0.04	20.50	0.007	0.007	0.008	0.006	0.002	0.013	0.0002	0.00001	0.0086	0.04	0.44
748148.20	4307131.70	273.0	1-HR	4TH	128.6	125.6	0.03	18.15	0.015	0.015	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0066	0.04	0.47
747697.30	4307573.30	272.9	1-HR	4TH	127.9	124.9	0.05	19.42	0.005	0.006	0.004	0.031	0.003	0.016	0.0002	0.00001	0.0100	0.05	0.52
747746.90	4307575.60	272.8	1-HR	4TH	127.8	124.8	0.05	19.42	0.005	0.005	0.020	0.056	0.003	0.016	0.0002	0.00001	0.0103	0.05	0.52
748147.50	4307173.80	272.7	1-HR	4TH	127.5	124.4	0.03	20.26	0.014	0.014	0.004	0.002	0.002	0.013	0.0002	0.00001	0.0081	0.04	0.41
748155.30	4307117.00	272.7	1-HR	4TH	128.5	125.5	0.02	18.15	0.015	0.015	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0064	0.04	0.47
747571.20	4308069.10	272.7	1-HR	4TH	127.7	124.7	0.05	19.41	0.005	0.006	0.003	0.003	0.004	0.023	0.0003	0.00002	0.0145	0.09	0.68

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748104.80	4307214.80	272.5	1-HR	4TH	127.4	124.3	0.03	20.26	0.013	0.012	0.005	0.002	0.002	0.013	0.0003	0.00001	0.0087	0.04	0.41
747619.60	4308060.40	272.4	1-HR	4TH	127.6	124.5	0.06	19.41	0.004	0.005	0.003	0.004	0.004	0.023	0.0003	0.00002	0.0143	0.09	0.68
747600.00	4308100.00	272.2	1-HR	4TH	128.1	124.8	0.04	18.53	0.003	0.005	0.002	0.002	0.003	0.021	0.0004	0.00002	0.0125	0.08	0.59
747485.60	4308166.70	272.2	1-HR	4TH	128.0	124.8	0.01	18.92	0.001	0.001	0.001	0.001	0.002	0.012	0.0003	0.00001	0.0088	0.04	0.39
747796.50	4307577.90	272.1	1-HR	4TH	127.4	124.4	0.05	19.42	0.005	0.005	0.066	0.105	0.003	0.016	0.0002	0.00001	0.0104	0.05	0.52
748195.80	4307102.90	272.0	1-HR	4TH	128.1	125.1	0.02	18.15	0.016	0.016	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0064	0.04	0.48
748200.00	4307100.00	271.9	1-HR	4TH	128.1	125.1	0.02	18.15	0.016	0.016	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0063	0.04	0.48
748146.70	4307215.90	271.6	1-HR	4TH	127.0	123.8	0.03	20.26	0.013	0.012	0.006	0.002	0.002	0.013	0.0003	0.00001	0.0090	0.04	0.41
748236.30	4307088.80	271.4	1-HR	4TH	127.8	124.8	0.02	18.15	0.017	0.016	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0064	0.04	0.48
748100.00	4307300.00	271.2	1-HR	4TH	126.5	123.4	0.04	20.77	0.011	0.010	0.013	0.003	0.002	0.012	0.0002	0.00001	0.0079	0.04	0.40
747668.00	4308051.70	271.2	1-HR	4TH	127.0	123.9	0.06	19.41	0.003	0.004	0.003	0.004	0.004	0.023	0.0003	0.00002	0.0141	0.10	0.68
747529.20	4308165.00	271.2	1-HR	4TH	127.5	124.3	0.01	18.92	0.001	0.001	0.001	0.001	0.002	0.012	0.0003	0.00001	0.0085	0.04	0.39
747846.00	4307580.20	271.1	1-HR	4TH	126.9	123.9	0.05	19.42	0.005	0.005	0.127	0.067	0.003	0.016	0.0002	0.00001	0.0106	0.05	0.52
748300.00	4307100.00	271.0	1-HR	4TH	127.6	124.6	0.03	18.15	0.018	0.017	0.005	0.002	0.003	0.015	0.0002	0.00001	0.0070	0.04	0.48
747900.00	4307500.00	271.0	1-HR	4TH	126.5	123.3	0.04	20.50	0.005	0.005	0.044	0.005	0.002	0.013	0.0002	0.00001	0.0103	0.05	0.44
748000.00	4307400.00	270.9	1-HR	4TH	126.5	123.3	0.04	20.50	0.007	0.007	0.022	0.005	0.002	0.013	0.0002	0.00001	0.0090	0.05	0.44
748200.00	4307200.00	270.9	1-HR	4TH	126.6	123.4	0.03	20.26	0.014	0.013	0.007	0.002	0.002	0.013	0.0003	0.00001	0.0090	0.04	0.42
748276.80	4307074.60	270.7	1-HR	4TH	127.4	124.5	0.02	18.15	0.017	0.017	0.004	0.001	0.003	0.016	0.0002	0.00001	0.0064	0.04	0.48
747945.20	4307584.70	270.3	1-HR	4TH	126.1	123.1	0.05	19.42	0.004	0.004	0.191	0.830	0.003	0.016	0.0002	0.00001	0.0108	0.06	0.53
748317.30	4307060.50	270.3	1-HR	4TH	127.2	124.3	0.02	18.15	0.018	0.017	0.004	0.001	0.003	0.016	0.0002	0.00001	0.0064	0.04	0.48
747895.60	4307582.50	270.1	1-HR	4TH	126.4	123.3	0.05	19.42	0.004	0.004	0.167	0.177	0.003	0.016	0.0002	0.00001	0.0107	0.05	0.52
747572.70	4308163.30	270.1	1-HR	4TH	126.4	123.3	0.03	19.79	0.005	0.005	0.002	0.002	0.002	0.014	0.0003	0.00001	0.0100	0.05	0.50
747716.30	4308043.00	270.0	1-HR	4TH	126.4	123.3	0.06	19.41	0.003	0.003	0.003	0.005	0.004	0.023	0.0003	0.00002	0.0139	0.10	0.69
747994.70	4307587.00	270.0	1-HR	4TH	125.9	122.8	0.02	19.42	0.001	0.001	0.236	1.301	0.002	0.009	0.0002	0.00001	0.0104	0.03	0.30
748357.90	4307046.30	269.6	1-HR	4TH	126.9	123.9	0.03	18.15	0.019	0.018	0.004	0.001	0.003	0.016	0.0002	0.00001	0.0064	0.04	0.48
747764.20	4308033.70	269.6	1-HR	4TH	126.2	123.1	0.06	19.41	0.003	0.003	0.003	0.006	0.004	0.023	0.0003	0.00002	0.0137	0.10	0.69
748396.80	4307070.10	269.5	1-HR	4TH	126.9	123.9	0.03	18.15	0.021	0.019	0.006	0.002	0.003	0.016	0.0002	0.00001	0.0070	0.04	0.48
747616.30	4308161.50	269.4	1-HR	4TH	127.6	125.0	0.03	16.23	0.004	0.004	0.001	0.002	0.002	0.012	0.0002	0.00001	0.0135	0.04	0.40
747700.00	4308100.00	269.3	1-HR	4TH	126.6	123.3	0.04	18.53	0.002	0.003	0.002	0.003	0.003	0.021	0.0004	0.00002	0.0118	0.08	0.59
747665.40	4308159.50	269.3	1-HR	4TH	127.6	125.0	0.03	16.23	0.004	0.004	0.001	0.002	0.002	0.012	0.0002	0.00001	0.0132	0.04	0.40
748000.00	4307500.00	269.2	1-HR	4TH	126.0	123.0	0.05	19.42	0.006	0.006	0.092	0.038	0.003	0.016	0.0002	0.00001	0.0096	0.05	0.53
748398.40	4307032.20	269.1	1-HR	4TH	126.6	123.7	0.03	18.15	0.021	0.019	0.005	0.001	0.003	0.016	0.0002	0.00001	0.0064	0.04	0.48
748395.30	4307108.00	269.0	1-HR	4TH	125.7	122.5	0.04	20.26	0.022	0.019	0.009	0.002	0.003	0.013	0.0003	0.00001	0.0084	0.04	0.42
747714.50	4308157.50	269.0	1-HR	4TH	126.3	123.7	0.06	18.08	0.006	0.007	0.002	0.003	0.004	0.023	0.0002	0.00002	0.0150	0.09	0.70
748200.00	4307300.00	268.9	1-HR	4TH	125.3	122.2	0.04	20.77	0.013	0.011	0.027	0.006	0.002	0.012	0.0002	0.00001	0.0082	0.04	0.40
747812.00	4308024.40	268.7	1-HR	4TH	125.7	122.7	0.06	19.41	0.003	0.003	0.003	0.006	0.004	0.023	0.0003	0.00002	0.0135	0.10	0.69
748300.00	4307200.00	268.7	1-HR	4TH	125.6	122.6	0.04	19.95	0.017	0.015	0.012	0.003	0.002	0.011	0.0001	0.00001	0.0057	0.04	0.37
748044.30	4307589.30	268.6	1-HR	4TH	125.0	121.9	0.11	20.00	0.006	0.005	0.211	0.768	0.003	0.017	0.0004	0.00002	0.0137	0.06	0.55
748100.00	4307400.00	268.6	1-HR	4TH	125.3	122.1	0.04	20.50	0.008	0.008	0.053	0.012	0.002	0.013	0.0002	0.00001	0.0092	0.05	0.44
747756.30	4308152.30	268.4	1-HR	4TH	126.0	123.4	0.07	18.08	0.006	0.006	0.002	0.003	0.004	0.023	0.0002	0.00002	0.0149	0.09	0.70
748100.00	4307500.00	268.3	1-HR	4TH	125.4	122.4	0.08	19.42	0.008	0.006	0.137	0.128	0.003	0.016	0.0002	0.00001	0.0099	0.05	0.53
748436.40	4307110.10	268.2	1-HR	4TH	125.2	122.1	0.04	20.26	0.026	0.021	0.012	0.003	0.003	0.013	0.0003	0.00001	0.0087	0.04	0.42
747798.10	4308147.10	268.1	1-HR	4TH	125.9	123.2	0.07	18.08	0.006	0.006	0.002	0.003	0.004	0.023	0.0002	0.00002	0.0147	0.09	0.71
749031.30	4306340.10	268.0	1-HR	4TH	125.5	122.4	0.00	19.89	0.002	0.002	0.000	0.000	0.002	0.006	0.0000	0.00001	0.0008	0.01	0.17
747859.80	4308015.10	268.0	1-HR	4TH	125.4	122.3	0.06	19.41	0.002	0.003	0.003	0.007	0.004	0.023	0.0003	0.00002	0.0134	0.10	0.69
747839.80	4308141.90	267.7	1-HR	4TH	125.7	123.0	0.07	18.08	0.005	0.006	0.002	0.003	0.004	0.023	0.0002	0.00002	0.0145	0.09	0.71
749077.70	4306342.30	267.6	1-HR	4TH	123.6	120.5	0.25	21.71	0.262	0.233	0.009	0.004	0.009	0.038	0.0002	0.00003	0.0053	0.09	0.90
747881.60	4308136.70	267.4	1-HR	4TH	125.5	122.9	0.07	18.08	0.005	0.005	0.002	0.003	0.004	0.023	0.0002	0.00002	0.0143	0.10	0.72
748093.90	4307591.60	267.3	1-HR	4TH	125.0	121.8	0.06	19.06	0.002	0.001	0.205	0.756	0.002	0.012	0.0005	0.00001	0.0145	0.03	0.34
748477.50	4307112.10	267.2	1-HR	4TH	124.7	121.6	0.05	20.26	0.031	0.024	0.015	0.004	0.003	0.014	0.0003	0.00001	0.0089	0.04	0.43
747907.60	4308005.80	267.2	1-HR	4TH	124.9	121.9	0.06	19.41	0.002	0.002	0.003	0.007	0.004	0.023	0.0003	0.00002	0.0132	0.10	0.70
748913.20	4306482.20	267.0	1-HR	4TH	125.9	122.9	0.01	18.03	0.003	0.003	0.000	0.000	0.002	0.007	0.0001	0.00001	0.0012	0.01	0.20
749012.50	4306373.90	267.0	1-HR	4TH	123.3	120.2	0.23	21.71	0.241	0.212	0.009	0.004	0.009	0.038	0.0002	0.00003	0.0053	0.09	0.89

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748916.10	4306448.90	266.8	1-HR	4TH	125.5	122.5	0.00	18.60	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.00000	0.0011	0.01	0.15
747923.40	4308131.50	266.8	1-HR	4TH	125.2	122.2	0.07	18.57	0.005	0.005	0.002	0.003	0.004	0.023	0.0003	0.00002	0.0111	0.10	0.71
748400.00	4307200.00	266.8	1-HR	4TH	124.3	121.2	0.06	20.77	0.026	0.020	0.025	0.006	0.002	0.012	0.0002	0.00001	0.0074	0.04	0.41
748906.70	4306514.50	266.8	1-HR	4TH	126.6	123.5	0.00	16.49	0.001	0.001	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0015	0.01	0.16
747800.00	4308100.00	266.6	1-HR	4TH	125.1	121.8	0.02	19.37	0.001	0.001	0.001	0.002	0.002	0.011	0.0004	0.00001	0.0087	0.04	0.32
748300.00	4307300.00	266.6	1-HR	4TH	124.2	121.1	0.07	20.50	0.018	0.014	0.044	0.012	0.003	0.014	0.0002	0.00001	0.0083	0.05	0.45
748200.00	4307500.00	266.5	1-HR	4TH	124.4	121.5	0.20	19.42	0.017	0.010	0.159	0.175	0.003	0.016	0.0002	0.00001	0.0100	0.06	0.54
748942.90	4306451.80	266.5	1-HR	4TH	125.4	122.4	0.00	18.60	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.00000	0.0012	0.01	0.15
748200.00	4307400.00	266.4	1-HR	4TH	124.1	121.0	0.07	20.50	0.012	0.010	0.088	0.030	0.002	0.013	0.0002	0.00001	0.0094	0.05	0.45
749000.00	4306400.00	266.2	1-HR	4TH	125.5	122.4	0.00	18.12	0.001	0.001	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0014	0.01	0.16
748875.40	4306568.50	266.2	1-HR	4TH	125.3	122.2	0.00	18.60	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.00000	0.0018	0.01	0.15
748518.60	4307114.20	266.1	1-HR	4TH	124.2	121.1	0.06	20.26	0.039	0.029	0.019	0.005	0.003	0.014	0.0003	0.00001	0.0091	0.04	0.43
747966.80	4308124.20	266.1	1-HR	4TH	124.7	121.6	0.08	19.00	0.006	0.006	0.002	0.003	0.004	0.020	0.0003	0.00002	0.0087	0.09	0.63
748900.30	4306546.80	266.1	1-HR	4TH	125.2	122.1	0.00	18.60	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.00000	0.0017	0.01	0.15
748850.50	4306590.20	266.1	1-HR	4TH	126.3	123.2	0.00	16.44	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.00001	0.0021	0.01	0.16
747955.40	4307996.50	266.1	1-HR	4TH	124.4	121.4	0.05	19.41	0.015	0.002	0.002	0.007	0.004	0.023	0.0003	0.00002	0.0130	0.10	0.70
748993.70	4306407.70	266.1	1-HR	4TH	125.4	122.3	0.00	18.12	0.001	0.001	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0014	0.01	0.16
748826.20	4306616.30	266.0	1-HR	4TH	126.4	123.2	0.00	16.18	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0028	0.01	0.17
748801.90	4306642.50	265.9	1-HR	4TH	126.3	123.1	0.00	16.23	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0028	0.01	0.16
748143.50	4307593.90	265.8	1-HR	4TH	124.3	121.0	0.21	19.06	0.003	0.002	0.186	0.623	0.002	0.012	0.0005	0.00001	0.0141	0.03	0.34
749000.00	4306500.00	265.5	1-HR	4TH	126.0	122.9	0.00	16.49	0.001	0.001	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0018	0.01	0.16
748973.00	4306446.30	265.5	1-HR	4TH	124.9	121.9	0.00	18.60	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.00000	0.0012	0.01	0.15
748003.20	4307987.20	265.4	1-HR	4TH	124.0	121.0	0.05	19.41	0.037	0.014	0.002	0.007	0.004	0.023	0.0003	0.00002	0.0128	0.10	0.70
748010.20	4308116.90	265.3	1-HR	4TH	124.3	121.2	0.08	19.00	0.006	0.006	0.002	0.003	0.004	0.020	0.0003	0.00002	0.0086	0.09	0.63
748900.00	4306600.00	265.3	1-HR	4TH	126.0	122.9	0.00	16.23	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0028	0.01	0.16
748777.60	4306668.60	265.3	1-HR	4TH	126.2	122.9	0.00	15.97	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0031	0.01	0.15
748559.80	4307116.30	265.2	1-HR	4TH	123.7	120.6	0.08	20.26	0.049	0.036	0.023	0.006	0.003	0.014	0.0003	0.00001	0.0094	0.04	0.43
749124.20	4306344.40	265.1	1-HR	4TH	123.2	120.0	0.26	19.97	0.283	0.254	0.010	0.005	0.009	0.039	0.0002	0.00004	0.0058	0.09	0.93
748000.00	4308000.00	265.0	1-HR	4TH	124.4	121.2	0.04	18.53	0.011	0.004	0.002	0.005	0.004	0.021	0.0003	0.00002	0.0116	0.09	0.62
748662.20	4306791.30	265.0	1-HR	4TH	125.3	122.3	0.01	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.00001	0.0035	0.01	0.20
748300.00	4307500.00	265.0	1-HR	4TH	123.5	120.6	0.45	19.42	0.041	0.024	0.154	0.192	0.003	0.016	0.0002	0.00001	0.0101	0.06	0.54
747900.00	4308100.00	264.8	1-HR	4TH	124.2	121.6	0.07	18.08	0.005	0.005	0.002	0.004	0.004	0.023	0.0002	0.00002	0.0143	0.10	0.72
748053.60	4308109.70	264.8	1-HR	4TH	124.1	121.2	0.07	18.57	0.008	0.005	0.002	0.003	0.004	0.023	0.0003	0.00002	0.0107	0.10	0.73
748559.10	4307145.00	264.8	1-HR	4TH	123.6	120.6	0.09	19.95	0.054	0.039	0.021	0.006	0.002	0.011	0.0001	0.00001	0.0059	0.04	0.38
748193.00	4307596.10	264.7	1-HR	4TH	123.1	120.0	0.58	20.00	0.007	0.003	0.178	0.454	0.002	0.011	0.0004	0.00001	0.0124	0.03	0.32
748500.00	4307200.00	264.6	1-HR	4TH	123.1	120.0	0.10	20.77	0.047	0.033	0.036	0.012	0.002	0.012	0.0002	0.00001	0.0077	0.04	0.41
748746.60	4306703.40	264.6	1-HR	4TH	125.9	122.7	0.00	15.74	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0034	0.01	0.18
748051.00	4307977.90	264.6	1-HR	4TH	123.6	120.6	0.07	19.41	0.053	0.038	0.003	0.006	0.004	0.024	0.0003	0.00002	0.0127	0.10	0.71
748640.10	4306828.20	264.5	1-HR	4TH	126.3	123.1	0.00	14.85	0.000	0.000	0.001	0.000	0.001	0.007	0.0002	0.00001	0.0061	0.01	0.21
748700.00	4306800.00	264.3	1-HR	4TH	125.0	121.9	0.01	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.00001	0.0038	0.01	0.20
748400.00	4307300.00	264.3	1-HR	4TH	123.0	120.0	0.12	20.50	0.035	0.024	0.060	0.022	0.003	0.014	0.0002	0.00001	0.0086	0.05	0.46
749100.00	4306400.00	264.3	1-HR	4TH	124.3	121.3	0.00	18.60	0.001	0.001	0.000	0.000	0.002	0.005	0.0001	0.00001	0.0013	0.01	0.15
748300.00	4307400.00	264.3	1-HR	4TH	123.0	119.9	0.15	20.50	0.024	0.016	0.109	0.052	0.003	0.013	0.0002	0.00001	0.0095	0.05	0.45
748675.20	4306901.10	264.3	1-HR	4TH	124.1	121.1	0.04	18.38	0.038	0.034	0.004	0.001	0.004	0.021	0.0001	0.00002	0.0046	0.06	0.56
748000.00	4308100.00	264.3	1-HR	4TH	123.9	121.3	0.07	18.08	0.006	0.005	0.002	0.004	0.004	0.023	0.0002	0.00002	0.0138	0.10	0.74
748709.90	4306925.90	264.1	1-HR	4TH	123.5	120.6	0.09	18.85	0.097	0.080	0.009	0.003	0.005	0.025	0.0001	0.00002	0.0048	0.08	0.75
748696.50	4306769.80	264.1	1-HR	4TH	124.8	121.8	0.01	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.00001	0.0033	0.01	0.20
748715.40	4306885.60	264.1	1-HR	4TH	123.9	121.0	0.04	18.38	0.041	0.036	0.004	0.001	0.004	0.020	0.0001	0.00002	0.0046	0.06	0.57
748097.00	4308102.40	264.1	1-HR	4TH	123.7	120.8	0.06	18.57	0.016	0.008	0.002	0.003	0.004	0.023	0.0003	0.00002	0.0107	0.10	0.72
748400.00	4307500.00	264.0	1-HR	4TH	123.5	120.6	0.53	18.57	0.014	0.009	0.158	0.183	0.002	0.011	0.0002	0.00001	0.0099	0.03	0.36
748100.00	4308100.00	264.0	1-HR	4TH	123.7	120.8	0.06	18.57	0.018	0.008	0.002	0.003	0.004	0.023	0.0003	0.00002	0.0107	0.10	0.72
748640.10	4306853.10	263.9	1-HR	4TH	124.1	121.2	0.03	17.89	0.034	0.032	0.003	0.001	0.004	0.021	0.0001	0.00002	0.0038	0.06	0.58
748242.60	4307598.40	263.9	1-HR	4TH	122.4	119.3	1.29	20.00	0.013	0.006	0.155	0.343	0.002	0.011	0.0004	0.00001	0.0121	0.03	0.33

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748750.50	4306910.20	263.9	1-HR	4TH	123.4	120.5	0.09	18.85	0.108	0.088	0.009	0.003	0.006	0.025	0.0001	0.00002	0.0048	0.08	0.75
748656.70	4306878.00	263.9	1-HR	4TH	124.1	121.1	0.03	17.89	0.035	0.033	0.003	0.001	0.004	0.021	0.0001	0.00002	0.0042	0.06	0.58
748731.40	4306735.00	263.7	1-HR	4TH	124.6	121.6	0.01	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.00001	0.0031	0.01	0.20
748098.80	4307968.60	263.7	1-HR	4TH	123.7	120.5	0.08	18.53	0.039	0.030	0.002	0.004	0.004	0.022	0.0003	0.00002	0.0115	0.09	0.63
748292.20	4307600.70	263.6	1-HR	4TH	121.8	118.7	2.34	20.00	0.022	0.012	0.135	0.255	0.002	0.011	0.0004	0.00001	0.0118	0.03	0.33
748300.00	4307600.00	263.6	1-HR	4TH	121.7	118.6	2.49	20.00	0.024	0.013	0.133	0.246	0.002	0.011	0.0004	0.00001	0.0117	0.03	0.33
748755.60	4306870.00	263.5	1-HR	4TH	123.9	121.0	0.04	17.89	0.044	0.038	0.005	0.001	0.005	0.021	0.0001	0.00002	0.0046	0.06	0.59
748341.70	4307603.00	263.5	1-HR	4TH	121.2	118.1	3.55	20.00	0.035	0.021	0.116	0.176	0.002	0.011	0.0004	0.00001	0.0114	0.03	0.33
748602.70	4307146.10	263.5	1-HR	4TH	122.5	119.5	0.12	20.77	0.070	0.051	0.030	0.010	0.003	0.012	0.0002	0.00001	0.0073	0.04	0.42
748536.40	4307703.10	263.4	1-HR	4TH	119.6	116.9	6.05	20.33	0.078	0.070	0.054	0.047	0.001	0.008	0.0002	0.00001	0.0110	0.02	0.24
748800.00	4307000.00	263.4	1-HR	4TH	122.7	119.6	0.10	20.26	0.098	0.078	0.020	0.006	0.003	0.014	0.0003	0.00001	0.0086	0.04	0.44
748722.20	4306750.70	263.4	1-HR	4TH	124.5	121.5	0.01	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.00001	0.0032	0.01	0.20
748391.30	4307605.30	263.3	1-HR	4TH	120.5	117.4	4.66	20.00	0.051	0.034	0.101	0.127	0.002	0.011	0.0004	0.00001	0.0111	0.03	0.33
748723.90	4306950.00	263.3	1-HR	4TH	123.7	120.8	0.06	18.15	0.061	0.048	0.009	0.003	0.003	0.016	0.0002	0.00001	0.0067	0.04	0.50
748800.00	4306700.00	263.3	1-HR	4TH	125.3	122.1	0.00	15.74	0.000	0.000	0.001	0.000	0.001	0.006	0.0002	0.00001	0.0037	0.01	0.18
748737.90	4306971.80	263.2	1-HR	4TH	123.6	120.7	0.07	18.15	0.070	0.054	0.012	0.004	0.003	0.016	0.0002	0.00001	0.0071	0.04	0.49
748140.40	4308095.10	263.2	1-HR	4TH	123.3	120.3	0.06	18.57	0.029	0.016	0.002	0.003	0.004	0.023	0.0003	0.00002	0.0106	0.10	0.72
748400.00	4307600.00	263.1	1-HR	4TH	120.5	117.4	4.61	20.00	0.051	0.034	0.103	0.128	0.002	0.011	0.0004	0.00001	0.0111	0.03	0.33
748400.00	4307400.00	263.1	1-HR	4TH	123.4	120.4	0.30	18.17	0.054	0.034	0.107	0.076	0.003	0.014	0.0002	0.00001	0.0092	0.05	0.46
748759.90	4306998.10	263.1	1-HR	4TH	122.6	119.5	0.09	20.26	0.083	0.065	0.017	0.005	0.003	0.014	0.0003	0.00001	0.0083	0.04	0.44
748791.10	4306894.40	263.1	1-HR	4TH	122.3	119.4	0.10	20.12	0.119	0.097	0.008	0.003	0.006	0.027	0.0001	0.00002	0.0044	0.08	0.81
748440.90	4307607.60	263.1	1-HR	4TH	119.9	116.8	5.66	20.00	0.068	0.050	0.087	0.092	0.002	0.011	0.0004	0.00001	0.0108	0.03	0.33
749123.70	4306413.50	263.0	1-HR	4TH	123.8	120.9	0.01	18.03	0.003	0.003	0.000	0.000	0.002	0.007	0.0001	0.00001	0.0014	0.01	0.21
748800.00	4306900.00	263.0	1-HR	4TH	122.9	120.0	0.10	18.85	0.125	0.102	0.010	0.003	0.006	0.025	0.0001	0.00002	0.0049	0.08	0.75
748500.00	4307500.00	263.0	1-HR	4TH	121.9	119.0	1.50	19.42	0.165	0.119	0.120	0.142	0.003	0.016	0.0002	0.00001	0.0101	0.06	0.55
748146.60	4307959.30	262.9	1-HR	4TH	123.3	120.1	0.16	18.53	0.051	0.042	0.003	0.004	0.004	0.022	0.0003	0.00002	0.0114	0.09	0.63
749000.00	4306600.00	262.8	1-HR	4TH	125.0	121.7	0.00	15.97	0.000	0.000	0.001	0.000	0.001	0.006	0.0002	0.00001	0.0035	0.01	0.15
749114.30	4306440.70	262.8	1-HR	4TH	124.6	121.5	0.00	16.49	0.001	0.001	0.000	0.000	0.002	0.006	0.0001	0.00001	0.0017	0.01	0.16
748795.80	4306854.40	262.7	1-HR	4TH	123.5	120.5	0.04	17.89	0.047	0.041	0.005	0.001	0.005	0.021	0.0001	0.00002	0.0046	0.06	0.59
749170.60	4306346.60	262.7	1-HR	4TH	123.7	120.6	0.00	18.12	0.001	0.001	0.000	0.000	0.002	0.006	0.0001	0.00001	0.0016	0.01	0.16
748831.70	4306878.60	262.7	1-HR	4TH	122.1	119.2	0.10	20.12	0.131	0.107	0.008	0.003	0.006	0.027	0.0001	0.00002	0.0044	0.08	0.81
748534.60	4307748.50	262.6	1-HR	4TH	119.9	116.9	4.25	19.47	0.673	0.554	0.029	0.021	0.005	0.024	0.0003	0.00002	0.0103	0.10	0.75
748600.00	4307700.00	262.6	1-HR	4TH	120.2	117.4	6.34	18.29	0.074	0.068	0.047	0.040	0.001	0.007	0.0002	0.00001	0.0099	0.02	0.22
748646.40	4307147.20	262.6	1-HR	4TH	122.0	119.0	0.14	20.77	0.087	0.065	0.034	0.013	0.003	0.012	0.0002	0.00001	0.0075	0.04	0.42
749142.90	4306382.60	262.5	1-HR	4TH	123.3	120.4	0.00	18.60	0.001	0.001	0.000	0.000	0.002	0.005	0.0001	0.00000	0.0013	0.01	0.15
748100.00	4308000.00	262.5	1-HR	4TH	123.1	120.0	0.05	18.53	0.026	0.018	0.002	0.004	0.004	0.021	0.0003	0.00002	0.0111	0.09	0.63
748782.00	4307024.50	262.4	1-HR	4TH	122.2	119.1	0.11	20.26	0.099	0.078	0.022	0.007	0.003	0.014	0.0003	0.00001	0.0088	0.04	0.44
748500.00	4307300.00	262.4	1-HR	4TH	122.0	118.9	0.22	20.50	0.069	0.047	0.070	0.032	0.003	0.014	0.0002	0.00001	0.0087	0.05	0.46
748194.40	4307950.00	262.2	1-HR	4TH	122.9	119.7	0.25	18.53	0.067	0.054	0.004	0.003	0.004	0.022	0.0003	0.00002	0.0113	0.09	0.64
748183.80	4308087.80	262.2	1-HR	4TH	122.8	119.9	0.07	18.57	0.045	0.029	0.002	0.002	0.004	0.023	0.0003	0.00002	0.0106	0.10	0.72
749100.00	4306500.00	262.2	1-HR	4TH	124.3	121.2	0.00	16.44	0.001	0.001	0.001	0.000	0.002	0.006	0.0001	0.00001	0.0023	0.01	0.16
748600.00	4307200.00	262.1	1-HR	4TH	121.8	118.7	0.17	20.77	0.084	0.061	0.045	0.018	0.003	0.012	0.0002	0.00001	0.0079	0.04	0.42
748836.00	4306838.90	262.1	1-HR	4TH	123.2	120.2	0.04	17.89	0.051	0.044	0.005	0.001	0.005	0.021	0.0001	0.00002	0.0046	0.06	0.59
748490.50	4307609.80	262.0	1-HR	4TH	119.0	116.0	6.32	20.00	0.086	0.066	0.076	0.074	0.002	0.011	0.0004	0.00001	0.0105	0.03	0.33
748872.30	4306862.80	261.9	1-HR	4TH	122.8	119.9	0.05	18.38	0.061	0.051	0.007	0.002	0.005	0.021	0.0001	0.00002	0.0050	0.06	0.57
748800.00	4306800.00	261.9	1-HR	4TH	123.0	120.1	0.04	17.89	0.043	0.038	0.003	0.001	0.005	0.021	0.0001	0.00002	0.0039	0.06	0.59
748900.00	4306900.00	261.9	1-HR	4TH	122.9	120.0	0.08	18.15	0.101	0.083	0.012	0.004	0.003	0.016	0.0002	0.00001	0.0068	0.04	0.51
749114.80	4306469.80	261.8	1-HR	4TH	123.0	120.0	0.00	18.60	0.001	0.001	0.001	0.000	0.002	0.005	0.0001	0.00000	0.0018	0.01	0.15
748500.00	4307400.00	261.7	1-HR	4TH	121.8	118.9	0.52	19.42	0.111	0.076	0.097	0.081	0.003	0.016	0.0002	0.00001	0.0091	0.06	0.55
748690.00	4307148.30	261.7	1-HR	4TH	121.5	118.5	0.17	20.77	0.107	0.082	0.037	0.015	0.003	0.012	0.0002	0.00001	0.0076	0.04	0.42
748500.00	4307600.00	261.7	1-HR	4TH	119.0	115.9	6.11	20.00	0.082	0.063	0.080	0.078	0.002	0.011	0.0004	0.00001	0.0105	0.03	0.33
748900.00	4307000.00	261.6	1-HR	4TH	121.7	118.7	0.14	20.26	0.138	0.115	0.026	0.010	0.003	0.014	0.0003	0.00001	0.0090	0.04	0.44
748912.90	4306847.10	261.6	1-HR	4TH	122.7	119.7	0.05	18.38	0.066	0.055	0.007	0.002	0.005	0.021	0.0001	0.00002	0.0050	0.06	0.58

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748227.00	4308080.50	261.5	1-HR	4TH	122.4	119.5	0.08	18.57	0.063	0.046	0.002	0.002	0.004	0.023	0.0003	0.00002	0.0105	0.10	0.72
748242.30	4307940.70	261.4	1-HR	4TH	122.4	119.2	0.36	18.53	0.089	0.069	0.005	0.003	0.004	0.022	0.0003	0.00002	0.0112	0.09	0.64
748804.00	4307050.80	261.4	1-HR	4TH	121.6	118.6	0.13	20.26	0.117	0.094	0.029	0.010	0.003	0.014	0.0003	0.00001	0.0093	0.04	0.44
748876.20	4306823.30	261.3	1-HR	4TH	122.7	119.8	0.04	17.89	0.055	0.047	0.005	0.001	0.005	0.021	0.0001	0.00002	0.0045	0.06	0.59
748900.00	4306700.00	261.3	1-HR	4TH	123.4	120.4	0.01	17.19	0.001	0.001	0.001	0.000	0.001	0.007	0.0001	0.00001	0.0035	0.01	0.20
749115.30	4306498.80	261.2	1-HR	4TH	123.8	120.8	0.00	16.44	0.001	0.001	0.001	0.000	0.002	0.006	0.0001	0.00001	0.0024	0.01	0.16
748532.80	4307794.00	261.2	1-HR	4TH	119.7	116.8	3.43	19.41	0.489	0.395	0.034	0.023	0.005	0.024	0.0003	0.00002	0.0118	0.10	0.74
749000.00	4306900.00	261.2	1-HR	4TH	122.5	119.6	0.11	18.15	0.136	0.115	0.015	0.006	0.004	0.016	0.0002	0.00001	0.0073	0.04	0.51
748538.20	4307657.60	261.1	1-HR	4TH	118.3	115.6	4.97	21.55	0.076	0.064	0.082	0.084	0.002	0.010	0.0002	0.00001	0.0107	0.03	0.31
748600.00	4307500.00	261.1	1-HR	4TH	121.1	118.0	2.84	18.48	0.042	0.031	0.111	0.137	0.002	0.010	0.0003	0.00001	0.0106	0.03	0.32
749000.00	4307000.00	261.0	1-HR	4TH	121.4	118.3	0.19	20.26	0.181	0.156	0.031	0.013	0.003	0.014	0.0003	0.00001	0.0094	0.04	0.44
748952.50	4306830.50	261.0	1-HR	4TH	122.6	119.7	0.06	17.89	0.071	0.060	0.008	0.002	0.005	0.021	0.0001	0.00002	0.0050	0.06	0.60
748733.70	4307149.40	260.9	1-HR	4TH	121.1	118.0	0.21	20.77	0.129	0.101	0.040	0.017	0.003	0.012	0.0002	0.00001	0.0077	0.04	0.42
748270.20	4308073.20	260.9	1-HR	4TH	122.0	119.1	0.11	18.57	0.087	0.064	0.002	0.002	0.004	0.023	0.0003	0.00002	0.0104	0.10	0.72
748290.10	4307931.40	260.8	1-HR	4TH	122.0	118.8	0.49	18.53	0.122	0.091	0.006	0.003	0.004	0.022	0.0003	0.00002	0.0111	0.09	0.64
748700.00	4307700.00	260.8	1-HR	4TH	119.6	116.7	4.89	18.20	0.429	0.387	0.035	0.023	0.003	0.014	0.0003	0.00001	0.0103	0.05	0.49
748911.80	4306808.00	260.6	1-HR	4TH	122.4	119.5	0.05	17.89	0.059	0.050	0.006	0.001	0.005	0.021	0.0001	0.00002	0.0045	0.06	0.60
748900.00	4306800.00	260.6	1-HR	4TH	122.4	119.5	0.04	17.89	0.055	0.047	0.005	0.001	0.005	0.021	0.0001	0.00002	0.0043	0.06	0.60
749122.60	4306533.00	260.5	1-HR	4TH	123.6	120.5	0.00	16.23	0.001	0.000	0.001	0.000	0.002	0.006	0.0001	0.00001	0.0031	0.01	0.16
748540.00	4307612.10	260.4	1-HR	4TH	118.1	115.0	6.58	20.00	0.103	0.083	0.066	0.060	0.002	0.011	0.0004	0.00001	0.0101	0.03	0.33
748992.10	4306813.90	260.4	1-HR	4TH	122.3	119.4	0.06	17.89	0.076	0.064	0.008	0.002	0.005	0.021	0.0001	0.00002	0.0050	0.06	0.60
748313.40	4308066.00	260.3	1-HR	4TH	121.7	118.8	0.15	18.57	0.116	0.087	0.003	0.002	0.004	0.023	0.0003	0.00002	0.0103	0.10	0.72
748600.00	4307300.00	260.3	1-HR	4TH	120.8	117.8	0.36	20.50	0.124	0.090	0.074	0.043	0.003	0.014	0.0002	0.00001	0.0088	0.05	0.46
748337.90	4307922.20	260.2	1-HR	4TH	121.6	118.5	0.32	19.37	0.043	0.044	0.003	0.002	0.002	0.011	0.0003	0.00001	0.0093	0.04	0.34
748947.50	4306792.80	260.2	1-HR	4TH	122.2	119.3	0.05	17.89	0.062	0.053	0.006	0.001	0.005	0.021	0.0001	0.00002	0.0045	0.06	0.60
748200.00	4308000.00	260.2	1-HR	4TH	121.8	118.6	0.02	19.37	0.016	0.014	0.001	0.002	0.002	0.011	0.0003	0.00001	0.0086	0.04	0.34
748700.00	4307200.00	260.1	1-HR	4TH	120.8	117.8	0.25	20.50	0.134	0.103	0.048	0.022	0.003	0.014	0.0002	0.00001	0.0080	0.05	0.47
749100.00	4306800.00	260.1	1-HR	4TH	120.8	118.0	0.15	19.63	0.229	0.197	0.010	0.004	0.007	0.028	0.0001	0.00002	0.0045	0.08	0.85
748778.30	4307145.90	260.1	1-HR	4TH	120.6	117.6	0.24	20.77	0.151	0.120	0.041	0.019	0.003	0.012	0.0002	0.00001	0.0077	0.04	0.42
749037.90	4306794.00	260.0	1-HR	4TH	122.0	119.2	0.06	17.89	0.082	0.070	0.008	0.002	0.005	0.021	0.0001	0.00002	0.0049	0.06	0.60
748600.00	4307400.00	259.9	1-HR	4TH	120.7	117.8	0.83	19.42	0.184	0.139	0.094	0.079	0.003	0.017	0.0002	0.00001	0.0092	0.06	0.56
749100.00	4306900.00	259.9	1-HR	4TH	120.8	117.8	0.15	20.26	0.174	0.151	0.021	0.009	0.004	0.014	0.0003	0.00001	0.0083	0.04	0.45
749000.00	4306700.00	259.9	1-HR	4TH	122.7	119.7	0.01	17.19	0.001	0.001	0.002	0.000	0.002	0.007	0.0001	0.00001	0.0040	0.01	0.20
748356.60	4308058.70	259.8	1-HR	4TH	121.4	118.5	0.20	18.57	0.152	0.115	0.003	0.002	0.005	0.023	0.0003	0.00002	0.0102	0.10	0.73
748700.00	4307500.00	259.7	1-HR	4TH	118.8	115.7	5.56	19.06	0.073	0.055	0.087	0.082	0.002	0.012	0.0005	0.00001	0.0115	0.03	0.35
748530.90	4307839.50	259.7	1-HR	4TH	119.8	116.9	2.00	20.24	0.116	0.097	0.017	0.011	0.003	0.013	0.0003	0.00001	0.0102	0.05	0.43
748828.10	4307091.50	259.7	1-HR	4TH	120.5	117.5	0.20	20.77	0.149	0.120	0.032	0.014	0.003	0.012	0.0002	0.00001	0.0073	0.04	0.42
748600.00	4307800.00	259.6	1-HR	4TH	119.2	116.3	2.68	19.41	0.598	0.505	0.031	0.020	0.005	0.025	0.0003	0.00002	0.0116	0.11	0.74
749088.30	4306729.30	259.5	1-HR	4TH	121.8	118.9	0.05	17.89	0.077	0.066	0.006	0.001	0.005	0.021	0.0001	0.00002	0.0043	0.06	0.61
749083.70	4306774.00	259.5	1-HR	4TH	121.8	118.9	0.06	17.89	0.088	0.075	0.008	0.002	0.005	0.021	0.0001	0.00002	0.0049	0.06	0.61
748983.10	4306777.50	259.4	1-HR	4TH	121.8	118.9	0.05	17.89	0.066	0.056	0.006	0.001	0.005	0.022	0.0001	0.00002	0.0044	0.06	0.60
748900.00	4307100.00	259.4	1-HR	4TH	120.2	117.2	0.29	20.77	0.195	0.163	0.037	0.018	0.003	0.012	0.0002	0.00001	0.0075	0.04	0.43
748385.70	4307912.90	259.3	1-HR	4TH	121.1	117.9	0.43	19.37	0.048	0.045	0.003	0.002	0.002	0.011	0.0003	0.00001	0.0092	0.04	0.34
748399.80	4308051.50	259.2	1-HR	4TH	121.0	118.2	0.26	18.57	0.200	0.150	0.004	0.002	0.005	0.023	0.0003	0.00002	0.0102	0.10	0.73
748600.00	4307600.00	259.1	1-HR	4TH	117.5	114.4	6.52	20.00	0.117	0.096	0.063	0.054	0.002	0.011	0.0003	0.00001	0.0099	0.03	0.33
748836.60	4307114.70	259.1	1-HR	4TH	120.1	117.1	0.25	20.77	0.165	0.135	0.037	0.017	0.003	0.012	0.0002	0.00001	0.0075	0.04	0.42
748816.80	4307148.00	259.1	1-HR	4TH	120.1	117.1	0.29	20.77	0.174	0.141	0.043	0.021	0.003	0.012	0.0002	0.00001	0.0078	0.04	0.42
749022.90	4306759.50	258.9	1-HR	4TH	121.5	118.6	0.05	17.89	0.070	0.060	0.006	0.001	0.005	0.022	0.0001	0.00002	0.0044	0.06	0.60
749062.70	4306741.50	258.8	1-HR	4TH	121.5	118.6	0.05	17.89	0.075	0.064	0.006	0.001	0.005	0.021	0.0001	0.00002	0.0043	0.06	0.61
749100.00	4306600.00	258.8	1-HR	4TH	123.0	119.9	0.00	15.74	0.001	0.001	0.002	0.000	0.002	0.007	0.0002	0.00001	0.0040	0.01	0.18
748800.00	4307200.00	258.7	1-HR	4TH	119.9	116.9	0.38	20.50	0.195	0.159	0.052	0.027	0.003	0.014	0.0002	0.00001	0.0082	0.05	0.47
748443.00	4308044.20	258.7	1-HR	4TH	120.7	117.8	0.33	18.57	0.262	0.195	0.005	0.002	0.005	0.023	0.0003	0.00002	0.0101	0.10	0.73
748433.50	4307903.60	258.6	1-HR	4TH	120.6	117.5	0.56	19.37	0.054	0.050	0.004	0.002	0.002	0.011	0.0003	0.00001	0.0091	0.04	0.34

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748700.00	4307400.00	258.6	1-HR	4TH	119.8	116.9	1.21	19.42	0.269	0.218	0.086	0.075	0.004	0.017	0.0002	0.00001	0.0093	0.06	0.56
748800.00	4307700.00	258.5	1-HR	4TH	118.7	115.7	4.30	18.20	0.495	0.460	0.030	0.019	0.003	0.014	0.0003	0.00001	0.0101	0.05	0.49
748700.00	4307300.00	258.3	1-HR	4TH	119.6	116.6	0.59	20.50	0.192	0.151	0.076	0.051	0.003	0.014	0.0002	0.00001	0.0089	0.05	0.47
749129.50	4306754.10	258.2	1-HR	4TH	121.1	118.3	0.06	17.89	0.093	0.080	0.008	0.002	0.006	0.022	0.0001	0.00002	0.0048	0.06	0.61
748300.00	4308000.00	258.2	1-HR	4TH	120.1	117.1	0.33	19.41	0.177	0.142	0.004	0.002	0.005	0.024	0.0003	0.00002	0.0116	0.11	0.75
748486.20	4308036.90	258.2	1-HR	4TH	120.3	117.5	0.40	18.57	0.336	0.254	0.005	0.002	0.005	0.023	0.0003	0.00002	0.0100	0.10	0.73
748481.30	4307894.30	258.1	1-HR	4TH	120.3	117.2	0.69	19.37	0.062	0.056	0.005	0.002	0.002	0.011	0.0003	0.00001	0.0091	0.04	0.34
748700.00	4307800.00	258.1	1-HR	4TH	118.7	115.8	2.45	20.24	0.194	0.167	0.022	0.013	0.003	0.014	0.0003	0.00001	0.0099	0.05	0.43
749100.00	4306700.00	258.0	1-HR	4TH	123.0	119.9	0.01	14.85	0.001	0.001	0.005	0.001	0.002	0.007	0.0003	0.00001	0.0071	0.01	0.21
748855.30	4307150.00	257.9	1-HR	4TH	119.4	116.4	0.34	20.77	0.197	0.163	0.044	0.023	0.003	0.012	0.0002	0.00001	0.0078	0.04	0.42
748529.40	4308029.70	257.9	1-HR	4TH	120.0	117.2	0.46	18.57	0.420	0.325	0.006	0.002	0.005	0.023	0.0003	0.00002	0.0099	0.10	0.74
748800.00	4307400.00	257.8	1-HR	4TH	119.5	116.5	1.73	19.42	0.098	0.072	0.084	0.071	0.002	0.010	0.0002	0.00001	0.0087	0.03	0.31
749138.30	4306573.60	257.8	1-HR	4TH	122.4	119.2	0.00	15.97	0.001	0.000	0.001	0.000	0.002	0.006	0.0002	0.00001	0.0039	0.01	0.15
748400.00	4308000.00	257.8	1-HR	4TH	120.1	117.4	0.47	18.53	0.264	0.209	0.005	0.002	0.005	0.022	0.0003	0.00002	0.0133	0.11	0.67
748500.00	4308000.00	257.5	1-HR	4TH	119.8	117.3	0.61	18.08	0.433	0.337	0.008	0.003	0.005	0.024	0.0002	0.00002	0.0125	0.10	0.75
748529.10	4307885.00	257.5	1-HR	4TH	119.9	116.8	0.83	19.37	0.073	0.064	0.006	0.002	0.002	0.011	0.0003	0.00001	0.0090	0.04	0.34
748700.00	4307600.00	257.5	1-HR	4TH	117.5	114.7	3.58	20.82	0.145	0.117	0.076	0.083	0.002	0.010	0.0002	0.00001	0.0090	0.03	0.34
748575.30	4308024.60	257.4	1-HR	4TH	119.7	116.8	0.52	18.57	0.513	0.409	0.007	0.002	0.005	0.023	0.0003	0.00002	0.0099	0.10	0.74
748800.00	4307500.00	257.4	1-HR	4TH	117.2	114.2	5.20	20.00	0.164	0.131	0.069	0.058	0.002	0.011	0.0003	0.00001	0.0100	0.03	0.34
748500.00	4307900.00	257.3	1-HR	4TH	120.0	116.9	0.62	19.37	0.063	0.056	0.005	0.002	0.002	0.011	0.0003	0.00001	0.0089	0.04	0.34
748800.00	4307600.00	257.3	1-HR	4TH	116.5	113.9	4.56	21.55	0.158	0.128	0.074	0.071	0.002	0.010	0.0002	0.00001	0.0102	0.03	0.31
748600.00	4308000.00	257.3	1-HR	4TH	119.5	116.6	0.64	18.57	0.613	0.501	0.009	0.003	0.005	0.023	0.0003	0.00002	0.0099	0.10	0.75
749100.00	4307000.00	257.2	1-HR	4TH	118.9	115.9	0.31	21.08	0.242	0.210	0.040	0.021	0.004	0.015	0.0003	0.00001	0.0106	0.04	0.48
748900.00	4307200.00	257.2	1-HR	4TH	119.0	116.0	0.55	20.50	0.265	0.224	0.052	0.032	0.003	0.014	0.0002	0.00001	0.0083	0.05	0.48
749000.00	4307100.00	257.2	1-HR	4TH	119.0	116.0	0.40	20.77	0.256	0.219	0.039	0.021	0.003	0.012	0.0002	0.00001	0.0077	0.04	0.43
749200.00	4306900.00	257.2	1-HR	4TH	119.4	116.4	0.20	20.26	0.212	0.189	0.024	0.012	0.004	0.014	0.0003	0.00001	0.0086	0.04	0.45
749113.80	4306717.00	256.9	1-HR	4TH	120.5	117.7	0.05	17.89	0.079	0.068	0.006	0.001	0.005	0.022	0.0001	0.00002	0.0042	0.06	0.61
748621.10	4308019.50	256.9	1-HR	4TH	119.3	116.5	0.57	18.57	0.611	0.502	0.008	0.003	0.005	0.023	0.0003	0.00002	0.0098	0.10	0.74
749200.00	4306800.00	256.8	1-HR	4TH	119.6	116.7	0.19	18.85	0.289	0.253	0.013	0.005	0.007	0.026	0.0001	0.00002	0.0052	0.08	0.78
748800.00	4307300.00	256.8	1-HR	4TH	119.8	116.9	0.79	18.17	0.270	0.224	0.067	0.049	0.003	0.014	0.0002	0.00001	0.0086	0.05	0.48
748900.00	4307600.00	256.8	1-HR	4TH	116.9	114.2	4.69	20.33	0.166	0.140	0.063	0.053	0.002	0.008	0.0002	0.00001	0.0102	0.02	0.25
748900.00	4307400.00	256.8	1-HR	4TH	118.3	115.5	1.92	19.42	0.460	0.404	0.070	0.058	0.004	0.017	0.0002	0.00001	0.0093	0.06	0.57
748900.00	4307700.00	256.8	1-HR	4TH	118.1	115.3	4.12	18.13	0.275	0.244	0.040	0.025	0.004	0.015	0.0002	0.00001	0.0113	0.06	0.48
749150.30	4306605.00	256.7	1-HR	4TH	121.9	118.8	0.01	15.74	0.001	0.001	0.002	0.000	0.002	0.007	0.0002	0.00001	0.0044	0.01	0.18
749175.30	4306734.20	256.6	1-HR	4TH	120.3	117.5	0.07	17.89	0.098	0.084	0.008	0.002	0.006	0.022	0.0001	0.00002	0.0047	0.06	0.61
748667.00	4308014.40	256.5	1-HR	4TH	119.0	116.1	0.57	19.00	0.570	0.500	0.006	0.002	0.005	0.020	0.0003	0.00002	0.0080	0.10	0.65
748700.00	4308000.00	256.5	1-HR	4TH	118.8	116.0	0.69	18.57	0.807	0.694	0.010	0.004	0.005	0.024	0.0003	0.00002	0.0096	0.11	0.76
749000.00	4307400.00	256.5	1-HR	4TH	117.9	115.1	2.17	19.42	0.561	0.506	0.063	0.050	0.004	0.017	0.0002	0.00001	0.0094	0.06	0.57
748712.80	4308009.30	256.1	1-HR	4TH	118.7	115.8	0.60	19.00	0.631	0.564	0.007	0.002	0.005	0.021	0.0003	0.00002	0.0079	0.10	0.66
748800.00	4307800.00	255.9	1-HR	4TH	118.4	115.4	1.89	19.37	0.212	0.186	0.014	0.006	0.003	0.011	0.0003	0.00001	0.0091	0.04	0.35
749200.00	4307000.00	255.8	1-HR	4TH	118.2	115.3	0.39	20.77	0.307	0.270	0.031	0.016	0.004	0.013	0.0002	0.00001	0.0072	0.04	0.44
749000.00	4307200.00	255.8	1-HR	4TH	118.1	115.1	0.76	20.50	0.341	0.296	0.052	0.034	0.003	0.014	0.0002	0.00001	0.0084	0.05	0.48
749170.60	4306640.00	255.8	1-HR	4TH	120.6	117.7	0.01	17.19	0.001	0.001	0.003	0.001	0.002	0.007	0.0001	0.00001	0.0041	0.01	0.20
749153.70	4306698.90	255.7	1-HR	4TH	119.9	117.0	0.05	17.89	0.083	0.071	0.006	0.001	0.006	0.022	0.0001	0.00002	0.0041	0.06	0.61
749000.00	4307600.00	255.6	1-HR	4TH	117.4	114.7	4.57	18.29	0.170	0.151	0.049	0.041	0.002	0.007	0.0002	0.00001	0.0092	0.02	0.22
748753.50	4308004.00	255.6	1-HR	4TH	118.4	115.5	0.62	19.00	0.686	0.622	0.007	0.003	0.005	0.021	0.0003	0.00002	0.0079	0.10	0.67
748900.00	4307500.00	255.6	1-HR	4TH	116.2	113.2	5.21	20.00	0.229	0.192	0.057	0.045	0.002	0.011	0.0003	0.00001	0.0096	0.03	0.34
749275.00	4306838.90	255.6	1-HR	4TH	119.5	116.7	0.18	18.15	0.209	0.187	0.018	0.009	0.004	0.017	0.0002	0.00001	0.0074	0.04	0.51
748900.00	4307300.00	255.5	1-HR	4TH	118.9	116.0	1.08	18.17	0.353	0.304	0.064	0.048	0.003	0.014	0.0002	0.00001	0.0086	0.05	0.48
749287.30	4306879.20	255.4	1-HR	4TH	118.4	115.5	0.23	20.26	0.236	0.212	0.025	0.013	0.004	0.015	0.0003	0.00001	0.0086	0.04	0.45
749199.50	4306722.00	255.4	1-HR	4TH	119.7	116.9	0.07	17.89	0.100	0.086	0.008	0.002	0.006	0.022	0.0001	0.00002	0.0046	0.06	0.61
748600.00	4307900.00	255.2	1-HR	4TH	120.2	117.2	0.60	16.68	0.077	0.065	0.005	0.002	0.002	0.011	0.0003	0.00001	0.0090	0.04	0.32
749253.10	4306775.10	255.2	1-HR	4TH	118.0	115.3	0.18	20.12	0.297	0.262	0.012	0.004	0.008	0.029	0.0001	0.00002	0.0047	0.08	0.84

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
749262.70	4306798.50	255.2	1-HR	4TH	119.4	116.6	0.15	18.15	0.185	0.165	0.015	0.007	0.004	0.017	0.0002	0.00001	0.0069	0.04	0.52
749000.00	4307300.00	255.2	1-HR	4TH	117.8	115.0	1.27	19.42	0.454	0.401	0.059	0.044	0.004	0.017	0.0002	0.00002	0.0086	0.06	0.58
749243.50	4306751.80	255.2	1-HR	4TH	118.3	115.6	0.17	19.63	0.275	0.242	0.011	0.004	0.008	0.029	0.0001	0.00003	0.0044	0.08	0.86
748794.10	4307998.70	255.1	1-HR	4TH	118.1	115.1	0.65	19.00	0.739	0.679	0.007	0.003	0.005	0.021	0.0003	0.00002	0.0079	0.10	0.67
748800.00	4308000.00	255.0	1-HR	4TH	118.0	115.1	0.64	19.00	0.742	0.683	0.007	0.003	0.005	0.021	0.0003	0.00002	0.0078	0.10	0.67
749100.00	4307400.00	254.9	1-HR	4TH	116.5	113.4	4.93	19.06	0.236	0.200	0.057	0.047	0.003	0.012	0.0004	0.00001	0.0106	0.03	0.36
749000.00	4307700.00	254.9	1-HR	4TH	116.5	113.7	3.14	20.24	0.341	0.309	0.029	0.019	0.003	0.014	0.0002	0.00001	0.0096	0.05	0.44
749100.00	4307100.00	254.8	1-HR	4TH	117.7	114.8	0.51	20.50	0.320	0.280	0.039	0.022	0.004	0.014	0.0002	0.00001	0.0077	0.05	0.49
749223.80	4306709.80	254.8	1-HR	4TH	119.4	116.5	0.07	17.89	0.102	0.088	0.008	0.002	0.006	0.022	0.0001	0.00002	0.0046	0.06	0.61
749193.50	4306680.90	254.5	1-HR	4TH	121.3	118.2	0.01	14.85	0.002	0.001	0.007	0.001	0.002	0.008	0.0003	0.00001	0.0073	0.01	0.21
748834.80	4307993.40	254.5	1-HR	4TH	117.2	114.5	0.98	19.06	0.952	0.873	0.011	0.004	0.006	0.026	0.0003	0.00002	0.0121	0.13	0.80
749292.10	4306911.00	254.4	1-HR	4TH	117.9	114.9	0.27	20.26	0.255	0.231	0.028	0.016	0.004	0.015	0.0003	0.00001	0.0089	0.04	0.45
749100.00	4307600.00	254.3	1-HR	4TH	116.9	114.2	4.15	18.29	0.203	0.185	0.041	0.034	0.002	0.007	0.0002	0.00001	0.0091	0.02	0.22
749200.00	4307100.00	254.2	1-HR	4TH	117.3	114.4	0.67	20.50	0.398	0.354	0.040	0.025	0.004	0.014	0.0002	0.00001	0.0078	0.05	0.49
748881.40	4307989.60	254.1	1-HR	4TH	116.9	114.2	1.01	19.06	1.023	0.947	0.012	0.004	0.006	0.026	0.0003	0.00002	0.0120	0.13	0.80
749100.00	4307300.00	254.1	1-HR	4TH	117.1	114.3	1.49	19.42	0.548	0.493	0.055	0.041	0.004	0.017	0.0002	0.00002	0.0087	0.06	0.58
749100.00	4307200.00	254.0	1-HR	4TH	117.0	114.0	1.00	20.50	0.422	0.374	0.051	0.036	0.004	0.014	0.0002	0.00001	0.0084	0.05	0.48
748700.00	4307900.00	253.8	1-HR	4TH	118.5	115.7	0.90	17.56	0.310	0.277	0.009	0.003	0.003	0.014	0.0002	0.00001	0.0098	0.06	0.44
748928.10	4307985.80	253.7	1-HR	4TH	116.6	113.9	1.03	19.06	1.089	1.018	0.012	0.004	0.007	0.026	0.0003	0.00002	0.0119	0.13	0.81
749296.90	4306942.80	253.4	1-HR	4TH	116.8	113.8	0.41	21.08	0.313	0.278	0.036	0.022	0.004	0.016	0.0003	0.00001	0.0103	0.04	0.49
749000.00	4307500.00	253.3	1-HR	4TH	115.2	112.2	4.88	20.00	0.297	0.259	0.047	0.035	0.003	0.011	0.0003	0.00001	0.0092	0.03	0.34
748974.80	4307982.00	253.3	1-HR	4TH	116.3	113.6	1.06	19.06	1.151	1.085	0.013	0.005	0.007	0.027	0.0003	0.00002	0.0118	0.13	0.81
748800.00	4307900.00	253.2	1-HR	4TH	117.8	115.2	1.65	17.26	0.349	0.320	0.012	0.004	0.003	0.014	0.0002	0.00001	0.0125	0.06	0.43
748900.00	4307800.00	253.1	1-HR	4TH	117.1	114.1	1.58	19.37	0.255	0.230	0.013	0.005	0.003	0.011	0.0003	0.00001	0.0088	0.04	0.35
749021.40	4307978.10	252.9	1-HR	4TH	116.1	113.3	1.07	19.06	1.209	1.149	0.013	0.005	0.007	0.027	0.0003	0.00002	0.0117	0.13	0.82
748900.00	4307900.00	252.8	1-HR	4TH	117.6	115.0	1.55	17.26	0.401	0.371	0.012	0.004	0.003	0.014	0.0003	0.00001	0.0122	0.06	0.43
749200.00	4307300.00	252.6	1-HR	4TH	116.7	113.8	1.72	19.42	0.282	0.240	0.052	0.039	0.003	0.010	0.0002	0.00001	0.0080	0.03	0.32
749000.00	4307900.00	252.5	1-HR	4TH	117.3	114.8	1.39	16.81	0.797	0.746	0.015	0.010	0.003	0.015	0.0002	0.00001	0.0111	0.05	0.52
749100.00	4307700.00	252.5	1-HR	4TH	115.6	112.8	2.45	20.24	0.394	0.362	0.026	0.017	0.004	0.014	0.0002	0.00001	0.0093	0.05	0.45
749301.20	4306986.80	252.5	1-HR	4TH	116.5	113.5	0.46	20.77	0.358	0.318	0.030	0.017	0.004	0.013	0.0002	0.00001	0.0071	0.04	0.44
749068.10	4307974.30	252.4	1-HR	4TH	115.8	113.0	1.09	19.06	1.261	1.207	0.013	0.005	0.007	0.027	0.0003	0.00002	0.0117	0.13	0.82
749300.00	4307300.00	252.3	1-HR	4TH	115.8	113.1	1.75	19.42	0.735	0.684	0.047	0.035	0.005	0.017	0.0002	0.00002	0.0088	0.06	0.59
749300.00	4307000.00	252.0	1-HR	4TH	116.2	113.3	0.50	20.77	0.369	0.328	0.031	0.018	0.004	0.013	0.0002	0.00001	0.0072	0.04	0.44
749200.00	4307200.00	252.0	1-HR	4TH	115.8	112.9	1.24	20.50	0.506	0.456	0.048	0.035	0.004	0.014	0.0002	0.00001	0.0084	0.05	0.49
749112.10	4307966.00	252.0	1-HR	4TH	115.5	112.8	1.13	19.06	1.316	1.268	0.014	0.006	0.007	0.027	0.0003	0.00002	0.0116	0.13	0.83
749200.00	4307600.00	251.9	1-HR	4TH	117.2	114.2	3.29	16.46	0.255	0.236	0.027	0.018	0.002	0.008	0.0003	0.00001	0.0085	0.02	0.27
749200.00	4307400.00	251.7	1-HR	4TH	115.0	112.0	4.67	19.06	0.297	0.261	0.048	0.039	0.003	0.012	0.0004	0.00001	0.0101	0.03	0.36
749306.50	4307011.60	251.6	1-HR	4TH	116.0	113.1	0.54	20.77	0.385	0.343	0.032	0.019	0.004	0.013	0.0002	0.00001	0.0073	0.04	0.44
749100.00	4307900.00	251.5	1-HR	4TH	116.9	114.1	0.86	17.29	0.855	0.816	0.013	0.009	0.003	0.015	0.0003	0.00001	0.0089	0.05	0.51
749100.00	4307500.00	251.4	1-HR	4TH	114.7	112.0	2.64	20.82	0.423	0.376	0.053	0.051	0.002	0.010	0.0002	0.00001	0.0084	0.03	0.34
749156.20	4307957.80	251.4	1-HR	4TH	115.1	112.4	1.16	19.06	1.369	1.325	0.015	0.006	0.007	0.027	0.0003	0.00002	0.0116	0.13	0.84
749311.80	4307036.40	250.9	1-HR	4TH	115.6	112.7	0.62	20.77	0.414	0.370	0.034	0.021	0.004	0.013	0.0002	0.00001	0.0074	0.04	0.44
749000.00	4307800.00	250.9	1-HR	4TH	117.3	114.4	1.52	16.68	0.288	0.264	0.012	0.005	0.003	0.011	0.0002	0.00001	0.0089	0.04	0.33
749300.00	4307100.00	250.7	1-HR	4TH	115.4	112.5	0.82	20.50	0.468	0.422	0.039	0.026	0.004	0.015	0.0002	0.00001	0.0078	0.05	0.49
749200.00	4307700.00	250.4	1-HR	4TH	115.3	112.4	1.96	19.37	0.475	0.449	0.019	0.010	0.003	0.012	0.0003	0.00001	0.0090	0.04	0.36
749200.20	4307949.50	250.4	1-HR	4TH	114.5	111.8	1.19	19.06	1.417	1.376	0.015	0.007	0.008	0.027	0.0003	0.00002	0.0115	0.13	0.84
749200.00	4307500.00	250.4	1-HR	4TH	113.5	111.0	3.12	21.55	0.394	0.349	0.054	0.049	0.002	0.010	0.0002	0.00001	0.0094	0.03	0.32
749315.90	4307068.20	250.3	1-HR	4TH	115.3	112.4	0.71	20.50	0.443	0.399	0.036	0.023	0.004	0.015	0.0002	0.00001	0.0076	0.05	0.49
749300.00	4307200.00	250.1	1-HR	4TH	115.9	113.1	1.27	18.17	0.584	0.535	0.044	0.032	0.004	0.015	0.0002	0.00001	0.0081	0.05	0.49
749318.10	4307094.30	250.1	1-HR	4TH	115.0	112.2	0.82	20.50	0.474	0.428	0.038	0.025	0.004	0.015	0.0002	0.00001	0.0078	0.05	0.49
749300.00	4307600.00	249.9	1-HR	4TH	114.9	112.2	3.07	18.13	0.462	0.430	0.038	0.026	0.004	0.016	0.0002	0.00001	0.0105	0.05	0.50
749200.00	4307900.00	249.8	1-HR	4TH	116.5	113.6	0.64	17.73	0.468	0.453	0.007	0.004	0.003	0.012	0.0003	0.00001	0.0075	0.05	0.41
749323.40	4307119.70	249.7	1-HR	4TH	114.8	111.9	0.96	20.50	0.507	0.461	0.040	0.027	0.004	0.015	0.0002	0.00001	0.0079	0.05	0.49

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
749242.50	4307939.70	249.5	1-HR	4TH	114.0	111.3	1.21	19.06	1.458	1.422	0.016	0.007	0.008	0.027	0.0003	0.00002	0.0114	0.13	0.85
749300.00	4307500.00	249.5	1-HR	4TH	113.8	111.2	3.01	20.33	0.389	0.351	0.047	0.042	0.002	0.008	0.0002	0.00001	0.0095	0.02	0.25
749284.80	4307930.00	249.3	1-HR	4TH	113.8	111.2	1.24	19.06	1.509	1.476	0.016	0.008	0.008	0.027	0.0003	0.00002	0.0114	0.13	0.85
749328.80	4307145.10	249.3	1-HR	4TH	114.4	111.5	1.12	20.50	0.541	0.494	0.042	0.030	0.004	0.015	0.0002	0.00001	0.0081	0.05	0.49
749300.00	4307400.00	249.2	1-HR	4TH	113.6	110.7	3.52	20.00	0.443	0.404	0.040	0.031	0.003	0.011	0.0003	0.00001	0.0090	0.03	0.35
749373.80	4307280.70	249.1	1-HR	4TH	115.3	112.6	1.44	18.57	0.314	0.279	0.051	0.037	0.003	0.012	0.0001	0.00001	0.0084	0.03	0.38
749400.00	4307600.00	249.0	1-HR	4TH	114.6	111.9	2.74	18.13	0.521	0.491	0.034	0.024	0.005	0.016	0.0002	0.00001	0.0104	0.05	0.50
749100.00	4307800.00	249.0	1-HR	4TH	115.4	112.7	1.55	17.56	0.647	0.616	0.015	0.008	0.004	0.014	0.0002	0.00001	0.0096	0.06	0.45
749360.70	4307237.30	248.8	1-HR	4TH	114.3	111.5	1.43	19.42	0.698	0.649	0.043	0.032	0.005	0.018	0.0002	0.00002	0.0083	0.06	0.59
749327.10	4307920.30	248.7	1-HR	4TH	113.5	110.8	1.27	19.06	1.547	1.519	0.017	0.008	0.008	0.027	0.0003	0.00002	0.0114	0.13	0.85
749300.00	4307900.00	248.7	1-HR	4TH	115.0	112.4	1.10	17.78	0.869	0.838	0.015	0.007	0.005	0.018	0.0003	0.00002	0.0111	0.08	0.56
749340.50	4307172.00	248.5	1-HR	4TH	115.1	112.3	1.15	18.17	0.577	0.530	0.041	0.030	0.004	0.015	0.0002	0.00001	0.0079	0.05	0.49
749350.60	4307204.70	248.4	1-HR	4TH	114.2	111.5	1.26	19.42	0.651	0.602	0.042	0.031	0.005	0.018	0.0002	0.00002	0.0081	0.06	0.59
749300.00	4307700.00	248.1	1-HR	4TH	115.4	112.5	2.20	16.68	0.503	0.482	0.018	0.010	0.003	0.011	0.0002	0.00001	0.0089	0.04	0.34
749387.00	4307324.00	248.1	1-HR	4TH	113.5	110.6	3.72	19.06	0.355	0.321	0.044	0.037	0.003	0.013	0.0004	0.00001	0.0100	0.03	0.36
749361.70	4307911.20	248.0	1-HR	4TH	114.7	112.1	1.02	17.78	0.884	0.856	0.014	0.006	0.005	0.018	0.0003	0.00002	0.0109	0.08	0.56
749200.00	4307800.00	247.7	1-HR	4TH	113.8	111.2	2.28	17.80	0.942	0.895	0.029	0.015	0.005	0.020	0.0003	0.00002	0.0136	0.08	0.58
749400.00	4307500.00	247.5	1-HR	4TH	114.1	111.4	2.79	18.29	0.317	0.298	0.037	0.034	0.002	0.007	0.0002	0.00001	0.0086	0.02	0.22
749396.20	4307902.00	247.5	1-HR	4TH	114.4	111.7	1.04	17.78	0.909	0.882	0.014	0.007	0.005	0.018	0.0003	0.00002	0.0108	0.08	0.57
749400.00	4307900.00	247.4	1-HR	4TH	114.4	111.7	1.05	17.78	0.912	0.886	0.014	0.007	0.005	0.018	0.0003	0.00002	0.0108	0.08	0.57
749430.80	4307892.90	247.0	1-HR	4TH	114.2	111.5	1.07	17.78	0.933	0.908	0.014	0.007	0.006	0.018	0.0003	0.00002	0.0108	0.08	0.57
749468.10	4307879.40	246.6	1-HR	4TH	113.9	111.2	1.11	17.78	0.964	0.941	0.015	0.007	0.006	0.018	0.0003	0.00002	0.0108	0.08	0.57
749451.10	4307515.60	246.5	1-HR	4TH	113.6	111.0	2.70	18.29	0.324	0.308	0.032	0.030	0.002	0.007	0.0002	0.00001	0.0085	0.02	0.22
749438.80	4307484.90	246.5	1-HR	4TH	113.6	111.0	2.62	18.29	0.330	0.312	0.036	0.034	0.002	0.007	0.0002	0.00001	0.0085	0.02	0.22
749300.00	4307800.00	246.5	1-HR	4TH	113.8	111.3	2.22	17.26	0.632	0.606	0.021	0.011	0.004	0.014	0.0002	0.00001	0.0115	0.06	0.45
749400.00	4307700.00	246.4	1-HR	4TH	114.6	111.8	1.88	16.68	0.541	0.523	0.016	0.009	0.003	0.011	0.0002	0.00001	0.0088	0.04	0.34
749400.20	4307367.40	246.4	1-HR	4TH	112.4	109.5	3.12	20.00	0.475	0.438	0.038	0.029	0.003	0.012	0.0003	0.00001	0.0088	0.03	0.35
749465.40	4307544.80	246.3	1-HR	4TH	114.3	111.6	2.30	16.89	0.354	0.335	0.027	0.020	0.004	0.012	0.0002	0.00001	0.0084	0.04	0.41
749505.30	4307866.00	246.2	1-HR	4TH	113.6	111.0	1.15	17.78	0.993	0.971	0.016	0.008	0.006	0.018	0.0003	0.00002	0.0108	0.08	0.57
749400.00	4307800.00	245.9	1-HR	4TH	113.6	111.1	1.96	17.26	0.677	0.651	0.019	0.010	0.004	0.014	0.0002	0.00001	0.0113	0.06	0.45
749542.60	4307852.50	245.8	1-HR	4TH	113.4	110.7	1.19	17.78	1.020	0.999	0.017	0.009	0.006	0.018	0.0003	0.00002	0.0109	0.08	0.57
749426.50	4307454.20	245.8	1-HR	4TH	111.4	108.9	2.48	21.55	0.528	0.487	0.043	0.040	0.003	0.010	0.0002	0.00001	0.0091	0.03	0.32
749500.00	4307800.00	245.5	1-HR	4TH	113.5	111.0	1.75	17.26	0.722	0.697	0.018	0.010	0.005	0.014	0.0002	0.00001	0.0111	0.06	0.45
749479.80	4307574.00	245.3	1-HR	4TH	112.8	110.1	2.54	18.13	0.530	0.501	0.033	0.024	0.005	0.016	0.0002	0.00001	0.0101	0.05	0.50
749497.60	4307608.70	244.8	1-HR	4TH	111.8	109.1	1.91	20.24	0.556	0.530	0.025	0.017	0.004	0.015	0.0002	0.00001	0.0087	0.05	0.46
749400.00	4307400.00	244.5	1-HR	4TH	111.4	108.6	3.13	20.00	0.485	0.451	0.034	0.026	0.003	0.012	0.0003	0.00001	0.0085	0.03	0.35
749641.00	4307774.70	244.4	1-HR	4TH	113.1	110.4	1.19	17.75	0.736	0.720	0.015	0.008	0.005	0.014	0.0003	0.00001	0.0094	0.06	0.45
749413.30	4307410.80	244.4	1-HR	4TH	112.1	109.5	2.10	19.51	0.393	0.366	0.043	0.040	0.003	0.009	0.0002	0.00001	0.0080	0.02	0.29
749500.00	4307700.00	244.2	1-HR	4TH	112.2	109.5	1.87	18.13	0.927	0.907	0.022	0.013	0.005	0.016	0.0003	0.00002	0.0110	0.06	0.54
749656.40	4307815.00	244.1	1-HR	4TH	111.9	109.4	1.52	17.35	1.551	1.530	0.025	0.017	0.007	0.021	0.0002	0.00002	0.0117	0.08	0.68
749618.50	4307827.50	244.1	1-HR	4TH	112.4	109.8	1.25	17.78	1.055	1.036	0.018	0.010	0.006	0.018	0.0003	0.00002	0.0108	0.07	0.58
749580.50	4307840.00	243.4	1-HR	4TH	112.2	109.6	1.20	17.78	1.017	0.997	0.017	0.009	0.006	0.019	0.0003	0.00002	0.0107	0.07	0.57
749625.70	4307734.40	243.2	1-HR	4TH	111.3	108.8	2.03	17.80	1.233	1.206	0.029	0.017	0.007	0.020	0.0003	0.00002	0.0128	0.08	0.60
749518.60	4307644.60	243.1	1-HR	4TH	111.7	108.8	1.56	19.37	0.615	0.598	0.018	0.011	0.004	0.012	0.0003	0.00001	0.0087	0.04	0.36
749600.00	4307800.00	242.9	1-HR	4TH	112.2	109.6	1.05	17.29	1.043	1.027	0.016	0.012	0.005	0.015	0.0002	0.00001	0.0083	0.05	0.53
749623.60	4307704.30	242.7	1-HR	4TH	111.0	108.5	2.21	17.80	1.239	1.210	0.031	0.019	0.007	0.020	0.0003	0.00002	0.0128	0.08	0.60
749592.20	4307710.50	242.7	1-HR	4TH	111.0	108.5	2.22	17.80	1.214	1.184	0.031	0.019	0.007	0.020	0.0003	0.00002	0.0128	0.08	0.60
749560.70	4307716.60	241.7	1-HR	4TH	110.6	108.0	2.21	17.80	1.170	1.138	0.031	0.019	0.006	0.021	0.0003	0.00002	0.0127	0.08	0.60
749539.70	4307680.60	241.6	1-HR	4TH	112.3	109.5	1.64	16.68	0.571	0.557	0.015	0.009	0.004	0.012	0.0002	0.00001	0.0086	0.04	0.34

Appendix F

Alton Township NAA Culpability Spreadsheet,

Ameren Missouri (Sioux) – "Rollback" Emission Rates

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

Culpability Groups Description Key
0001PS/0002PS: Boiler 1 and Boiler 2 stacks from Portage De Sioux Plant in Missouri
0052AS1 Alton Steel LMF Single Stack
BACKGRND: Background SO_2 (derived from East St. Louis monitor)
0027AS1: Alton Steel EAF Baghouse 1 stack
0027AS2: Alton Steel EAF Baghouse 2 stack
0031AS: Alton Steel 14-inch Rolling Mill Reheat Furnace stack
0099AS: Alton Steel Caster
GBC_OL: The combined contribution from GBC Metals and Olin Corporation (20 stacks)
NM: National Maintenance & Repair (2 stacks)
ATF: Alton Water Treatment Facility (1 stack)
CPH: Conoco-Philips Hartford Plant (1 stack)
AM_SC_AN: The combined contribution from Alton Memorial Hospital (3 stacks), St. Anthony's Hospital (1 stack), and St. Claire's Hospital (3 stacks)
CHM: Charles E. Mahoney Plant (3 stacks)
WRB: WRB Refininery (62 stacks)

Contributions to the 99th percentile 1-Hour SO_2 concentrations

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
746470.80	4307375.10	**194.7**	1-HR	4TH	88.3	86.2	0.01	20.05	0.001	0.001	0.000	0.000	0.001	0.005	0.0000	0.00000	0.0001	0.01	0.15
746409.70	4307115.30	**194.4**	1-HR	4TH	88.0	85.9	0.02	20.00	0.009	0.009	0.001	0.000	0.002	0.015	0.0001	0.00001	0.0004	0.04	0.36
746412.20	4307200.10	**194.3**	1-HR	4TH	87.5	85.5	0.01	21.15	0.002	0.002	0.000	0.000	0.001	0.004	0.0000	0.00000	0.0001	0.01	0.14
746395.90	4307154.70	**194.2**	1-HR	4TH	87.5	85.4	0.01	21.15	0.002	0.002	0.000	0.000	0.001	0.004	0.0000	0.00000	0.0001	0.01	0.14
746457.70	4307329.50	**194.1**	1-HR	4TH	87.3	85.3	0.03	20.96	0.031	0.031	0.001	0.000	0.002	0.015	0.0000	0.00001	0.0004	0.04	0.39
746441.10	4307088.70	**194.1**	1-HR	4TH	87.9	85.7	0.02	20.00	0.009	0.009	0.001	0.000	0.002	0.015	0.0001	0.00001	0.0004	0.04	0.36
746428.50	4307245.50	**193.9**	1-HR	4TH	87.5	85.4	0.00	20.85	0.001	0.001	0.000	0.000	0.000	0.004	0.0000	0.00000	0.0001	0.01	0.13
746443.10	4307287.50	**193.8**	1-HR	4TH	87.5	85.5	0.03	20.21	0.030	0.030	0.001	0.000	0.002	0.015	0.0000	0.00001	0.0004	0.04	0.41
746472.50	4307062.20	**193.7**	1-HR	4TH	88.1	86.0	0.02	19.14	0.009	0.009	0.001	0.000	0.002	0.017	0.0001	0.00002	0.0004	0.04	0.41
746500.00	4307400.00	**193.4**	1-HR	4TH	88.2	86.0	0.05	18.20	0.039	0.039	0.001	0.001	0.004	0.033	0.0002	0.00003	0.0050	0.09	0.73
746504.00	4307035.70	**193.3**	1-HR	4TH	88.2	86.0	0.02	18.64	0.008	0.008	0.000	0.000	0.002	0.016	0.0001	0.00002	0.0004	0.04	0.37
746707.20	4306843.60	**193.3**	1-HR	4TH	88.4	86.1	0.02	18.15	0.011	0.012	0.001	0.000	0.002	0.020	0.0001	0.00002	0.0005	0.05	0.46
746537.80	4307003.70	**193.2**	1-HR	4TH	88.1	86.0	0.02	18.64	0.008	0.008	0.001	0.000	0.002	0.016	0.0001	0.00002	0.0004	0.04	0.37
746571.70	4306971.70	**193.1**	1-HR	4TH	89.2	87.0	0.02	16.52	0.008	0.008	0.000	0.000	0.002	0.017	0.0001	0.00002	0.0004	0.04	0.38
746484.00	4307420.60	**193.1**	1-HR	4TH	88.1	85.8	0.05	18.20	0.039	0.039	0.001	0.001	0.004	0.033	0.0003	0.00003	0.0052	0.09	0.73
746673.30	4306875.60	**193.0**	1-HR	4TH	88.3	86.0	0.02	18.15	0.011	0.012	0.001	0.000	0.002	0.020	0.0001	0.00002	0.0005	0.05	0.46
746500.00	4307300.00	**193.0**	1-HR	4TH	86.9	84.9	0.02	20.70	0.030	0.030	0.001	0.000	0.002	0.015	0.0000	0.00001	0.0004	0.04	0.40
746639.50	4306907.60	**192.9**	1-HR	4TH	88.0	85.8	0.02	18.64	0.008	0.008	0.001	0.000	0.002	0.017	0.0001	0.00002	0.0004	0.04	0.39
746605.60	4306939.70	**192.8**	1-HR	4TH	87.9	85.8	0.02	18.64	0.008	0.008	0.001	0.000	0.002	0.016	0.0001	0.00002	0.0004	0.04	0.37
746500.00	4307200.00	**192.4**	1-HR	4TH	86.7	84.6	0.00	20.85	0.001	0.001	0.000	0.000	0.000	0.004	0.0000	0.00000	0.0001	0.01	0.13
746600.00	4307300.00	**192.1**	1-HR	4TH	87.2	85.1	0.03	19.21	0.030	0.030	0.001	0.000	0.002	0.016	0.0000	0.00001	0.0005	0.04	0.41
746500.00	4307100.00	**192.0**	1-HR	4TH	86.8	84.7	0.02	20.00	0.008	0.009	0.001	0.000	0.002	0.015	0.0001	0.00001	0.0005	0.04	0.36
746684.90	4307272.20	**192.0**	1-HR	4TH	87.3	85.3	0.03	18.73	0.031	0.031	0.001	0.000	0.002	0.016	0.0000	0.00001	0.0005	0.05	0.43
746682.50	4307319.80	**191.9**	1-HR	4TH	86.7	84.5	0.05	19.74	0.038	0.038	0.001	0.001	0.004	0.031	0.0002	0.00003	0.0052	0.09	0.71
746497.10	4307466.10	**191.9**	1-HR	4TH	88.8	86.5	0.00	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.00001	0.0003	0.02	0.19
746600.00	4307000.00	**191.5**	1-HR	4TH	87.3	85.2	0.02	18.64	0.007	0.007	0.001	0.000	0.002	0.017	0.0001	0.00002	0.0005	0.04	0.37
746526.80	4307639.00	**191.5**	1-HR	4TH	86.6	84.5	0.02	19.95	0.021	0.021	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0025	0.03	0.32

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
746600.00	4307400.00	191.4	1-HR	4TH	87.8	85.7	0.01	17.63	0.000	0.001	0.000	0.000	0.001	0.009	0.0001	0.00001	0.0003	0.02	0.23
746687.40	4307224.60	191.4	1-HR	4TH	86.3	84.3	0.03	20.21	0.030	0.030	0.001	0.000	0.002	0.016	0.0000	0.00001	0.0004	0.05	0.42
746600.00	4307200.00	191.3	1-HR	4TH	86.2	84.1	0.01	20.85	0.001	0.001	0.000	0.000	0.000	0.004	0.0000	0.00000	0.0001	0.01	0.13
746704.70	4306891.20	191.2	1-HR	4TH	87.1	84.9	0.02	18.64	0.007	0.008	0.001	0.000	0.002	0.017	0.0001	0.00002	0.0004	0.04	0.39
746600.00	4307100.00	191.2	1-HR	4TH	85.9	83.9	0.01	21.15	0.002	0.002	0.000	0.000	0.001	0.005	0.0000	0.00000	0.0001	0.01	0.14
746700.00	4306900.00	191.0	1-HR	4TH	87.1	84.9	0.02	18.64	0.007	0.008	0.001	0.000	0.002	0.017	0.0001	0.00002	0.0004	0.04	0.39
746505.30	4307502.10	191.0	1-HR	4TH	88.4	86.1	0.00	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.00001	0.0005	0.02	0.19
746689.90	4307177.00	190.9	1-HR	4TH	86.4	84.3	0.00	20.09	0.000	0.000	0.000	0.000	0.000	0.004	0.0000	0.00000	0.0001	0.01	0.12
746692.40	4307129.30	190.9	1-HR	4TH	85.8	83.8	0.01	21.15	0.001	0.001	0.000	0.000	0.001	0.005	0.0000	0.00000	0.0001	0.01	0.14
746680.00	4307367.50	190.9	1-HR	4TH	87.6	85.4	0.01	17.63	0.000	0.000	0.000	0.000	0.001	0.009	0.0001	0.00001	0.0003	0.02	0.23
746529.10	4307679.90	190.7	1-HR	4TH	86.2	84.1	0.02	19.95	0.020	0.021	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0034	0.03	0.32
746702.30	4306938.90	190.5	1-HR	4TH	86.8	84.7	0.02	18.64	0.007	0.007	0.001	0.000	0.002	0.017	0.0001	0.00002	0.0005	0.04	0.37
746600.00	4307600.00	190.5	1-HR	4TH	86.1	84.0	0.02	19.95	0.020	0.021	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0024	0.03	0.32
746524.60	4307598.20	190.5	1-HR	4TH	87.1	85.1	0.02	17.83	0.021	0.021	0.001	0.000	0.002	0.012	0.0001	0.00001	0.0018	0.04	0.37
746677.50	4307415.10	190.3	1-HR	4TH	88.0	85.7	0.01	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.00001	0.0005	0.02	0.19
746699.80	4306986.50	190.1	1-HR	4TH	85.9	83.8	0.02	20.00	0.008	0.008	0.001	0.000	0.002	0.016	0.0001	0.00001	0.0006	0.04	0.37
746513.40	4307538.10	190.1	1-HR	4TH	86.9	84.7	0.02	18.10	0.020	0.021	0.001	0.000	0.002	0.012	0.0001	0.00001	0.0015	0.04	0.37
746531.40	4307720.80	190.1	1-HR	4TH	85.9	83.8	0.02	19.95	0.020	0.021	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0047	0.03	0.32
746519.00	4307568.10	190.0	1-HR	4TH	86.7	84.7	0.02	18.15	0.020	0.020	0.001	0.000	0.002	0.014	0.0001	0.00001	0.0018	0.04	0.42
746667.60	4307605.60	190.0	1-HR	4TH	85.8	83.8	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0030	0.03	0.33
746694.80	4307081.70	190.0	1-HR	4TH	85.3	83.3	0.01	21.15	0.001	0.001	0.000	0.000	0.001	0.005	0.0000	0.00000	0.0001	0.01	0.14
746697.30	4307034.10	189.9	1-HR	4TH	85.6	83.5	0.01	20.66	0.001	0.002	0.000	0.000	0.001	0.005	0.0000	0.00000	0.0001	0.01	0.16
746534.00	4307813.10	189.8	1-HR	4TH	85.1	83.1	0.02	20.94	0.023	0.023	0.001	0.000	0.002	0.014	0.0001	0.00001	0.0084	0.04	0.44
746532.70	4307767.00	189.7	1-HR	4TH	85.0	83.0	0.02	21.20	0.023	0.023	0.001	0.000	0.002	0.012	0.0001	0.00001	0.0065	0.04	0.40
746529.20	4307976.60	189.7	1-HR	4TH	85.0	82.9	0.01	21.46	0.005	0.005	0.000	0.000	0.001	0.009	0.0002	0.00001	0.0216	0.03	0.29
746531.60	4307894.90	189.7	1-HR	4TH	85.5	83.3	0.01	20.52	0.004	0.005	0.000	0.000	0.001	0.010	0.0003	0.00001	0.0167	0.03	0.31
746532.80	4307854.00	189.6	1-HR	4TH	85.3	83.2	0.01	20.94	0.004	0.004	0.000	0.000	0.001	0.008	0.0001	0.00001	0.0110	0.02	0.24
746670.10	4307558.00	189.5	1-HR	4TH	86.4	84.4	0.02	18.15	0.020	0.020	0.001	0.000	0.002	0.014	0.0002	0.00001	0.0029	0.04	0.42
746666.10	4307650.80	189.5	1-HR	4TH	85.6	83.5	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0041	0.03	0.33
746600.00	4307500.00	189.5	1-HR	4TH	86.5	84.4	0.02	18.10	0.020	0.020	0.001	0.000	0.002	0.012	0.0001	0.00001	0.0016	0.04	0.37
746600.00	4307700.00	189.4	1-HR	4TH	85.6	83.5	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0049	0.03	0.32
746675.80	4307652.20	189.4	1-HR	4TH	85.5	83.5	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0043	0.03	0.33
746675.00	4307462.70	189.1	1-HR	4TH	87.4	85.2	0.01	16.35	0.001	0.001	0.000	0.000	0.001	0.007	0.0001	0.00001	0.0009	0.02	0.19
746530.40	4307935.70	189.1	1-HR	4TH	85.2	83.0	0.01	20.52	0.004	0.005	0.000	0.000	0.001	0.010	0.0003	0.00001	0.0208	0.03	0.31
746672.60	4307510.30	189.1	1-HR	4TH	86.2	84.2	0.02	18.15	0.020	0.020	0.001	0.000	0.002	0.014	0.0001	0.00001	0.0021	0.04	0.42
746600.00	4307800.00	189.0	1-HR	4TH	84.8	82.7	0.02	20.94	0.022	0.023	0.001	0.000	0.002	0.014	0.0001	0.00001	0.0088	0.04	0.44
746717.40	4307653.20	188.9	1-HR	4TH	85.3	83.2	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0048	0.03	0.33
746528.00	4308017.50	188.8	1-HR	4TH	84.3	82.1	0.01	22.04	0.005	0.005	0.000	0.000	0.001	0.011	0.0004	0.00001	0.0290	0.03	0.31
746673.50	4307698.50	188.7	1-HR	4TH	85.2	83.1	0.02	19.95	0.020	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0058	0.03	0.32
746600.00	4307900.00	188.6	1-HR	4TH	84.9	82.8	0.01	20.52	0.004	0.004	0.000	0.000	0.001	0.010	0.0003	0.00001	0.0183	0.03	0.31
746668.80	4307790.90	188.6	1-HR	4TH	84.6	82.5	0.02	20.94	0.022	0.022	0.001	0.000	0.002	0.014	0.0001	0.00001	0.0094	0.04	0.44
746671.20	4307744.70	188.5	1-HR	4TH	84.5	82.5	0.02	20.94	0.022	0.022	0.001	0.000	0.002	0.014	0.0001	0.00001	0.0070	0.04	0.45
746525.40	4308157.80	188.2	1-HR	4TH	84.8	82.8	0.01	20.33	0.002	0.002	0.000	0.000	0.001	0.007	0.0003	0.00001	0.0313	0.02	0.22
746666.50	4307837.20	188.2	1-HR	4TH	84.2	82.2	0.01	21.46	0.004	0.004	0.001	0.000	0.001	0.009	0.0002	0.00001	0.0124	0.03	0.30
746669.40	4307944.60	188.0	1-HR	4TH	83.8	81.7	0.01	22.04	0.004	0.004	0.001	0.000	0.001	0.011	0.0004	0.00001	0.0243	0.03	0.32
746665.10	4307883.80	188.0	1-HR	4TH	84.6	82.5	0.01	20.52	0.004	0.004	0.000	0.000	0.001	0.010	0.0003	0.00001	0.0177	0.03	0.31
746600.00	4308000.00	187.9	1-HR	4TH	83.8	81.7	0.01	22.04	0.004	0.005	0.000	0.000	0.001	0.011	0.0004	0.00001	0.0270	0.03	0.32
746759.10	4307654.20	187.9	1-HR	4TH	84.8	82.7	0.02	19.95	0.019	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0053	0.03	0.33
746526.40	4308060.20	187.9	1-HR	4TH	83.8	81.6	0.01	22.04	0.005	0.005	0.000	0.000	0.001	0.011	0.0004	0.00001	0.0297	0.03	0.31
746564.00	4308183.00	187.8	1-HR	4TH	84.7	82.6	0.01	20.17	0.005	0.005	0.000	0.000	0.002	0.012	0.0003	0.00001	0.0287	0.04	0.34
746525.10	4308130.40	187.7	1-HR	4TH	84.1	82.2	0.02	20.92	0.006	0.007	0.001	0.000	0.002	0.013	0.0004	0.00001	0.0307	0.04	0.34

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
746667.30	4307914.20	187.7	1-HR	4TH	84.3	82.3	0.01	20.61	0.004	0.004	0.001	0.000	0.001	0.011	0.0002	0.00001	0.0154	0.03	0.35
746524.80	4308103.00	187.4	1-HR	4TH	84.1	82.1	0.01	20.91	0.002	0.002	0.000	0.000	0.001	0.006	0.0003	0.00001	0.0276	0.02	0.20
746798.40	4307655.90	187.4	1-HR	4TH	84.5	82.5	0.02	19.95	0.019	0.020	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0058	0.03	0.33
746597.40	4308185.60	187.3	1-HR	4TH	84.4	82.3	0.01	20.17	0.005	0.005	0.000	0.000	0.002	0.012	0.0003	0.00001	0.0273	0.04	0.34
746668.50	4307981.80	187.3	1-HR	4TH	83.5	81.4	0.01	22.04	0.004	0.004	0.001	0.000	0.001	0.011	0.0004	0.00001	0.0255	0.03	0.32
746837.80	4307657.70	186.9	1-HR	4TH	84.3	82.2	0.02	19.95	0.019	0.019	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0064	0.03	0.33
746629.20	4308187.30	186.7	1-HR	4TH	84.1	82.0	0.01	20.17	0.004	0.005	0.000	0.000	0.002	0.012	0.0003	0.00001	0.0261	0.04	0.34
746667.50	4308019.00	186.5	1-HR	4TH	83.1	81.0	0.01	22.04	0.004	0.004	0.001	0.000	0.001	0.011	0.0004	0.00001	0.0258	0.03	0.32
746865.70	4307658.00	186.5	1-HR	4TH	84.1	82.0	0.02	19.95	0.018	0.019	0.001	0.000	0.001	0.010	0.0001	0.00001	0.0067	0.03	0.33
746667.00	4308131.90	186.4	1-HR	4TH	84.3	82.2	0.01	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.00001	0.0228	0.02	0.25
746600.00	4308100.00	186.4	1-HR	4TH	83.6	81.6	0.01	20.91	0.002	0.002	0.000	0.000	0.001	0.006	0.0003	0.00001	0.0250	0.02	0.20
746660.90	4308189.00	186.2	1-HR	4TH	83.8	81.7	0.01	20.17	0.004	0.004	0.001	0.000	0.002	0.012	0.0003	0.00001	0.0250	0.04	0.34
746893.70	4307658.40	186.1	1-HR	4TH	83.9	81.8	0.02	19.95	0.018	0.019	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0071	0.03	0.33
746927.80	4307661.30	186.1	1-HR	4TH	83.9	81.8	0.02	19.95	0.018	0.018	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0077	0.03	0.33
747014.20	4307598.90	186.0	1-HR	4TH	83.8	81.8	0.03	19.95	0.017	0.018	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0063	0.03	0.33
746694.20	4308129.80	186.0	1-HR	4TH	84.1	82.0	0.01	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.00001	0.0219	0.02	0.25
746667.20	4308094.30	185.9	1-HR	4TH	83.3	81.3	0.01	20.91	0.002	0.002	0.000	0.000	0.001	0.006	0.0003	0.00001	0.0232	0.02	0.20
746962.00	4307664.10	185.9	1-HR	4TH	83.9	81.8	0.02	19.68	0.017	0.018	0.001	0.001	0.002	0.012	0.0001	0.00001	0.0077	0.04	0.38
746667.30	4308056.60	185.8	1-HR	4TH	83.3	81.3	0.01	20.91	0.002	0.002	0.000	0.000	0.001	0.006	0.0003	0.00001	0.0228	0.02	0.20
747055.10	4307583.00	185.6	1-HR	4TH	83.6	81.6	0.03	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0062	0.03	0.33
747023.80	4307624.10	185.6	1-HR	4TH	83.6	81.6	0.03	19.95	0.017	0.017	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0073	0.03	0.33
746996.20	4307667.00	185.5	1-HR	4TH	83.0	81.0	0.03	20.94	0.018	0.019	0.001	0.001	0.002	0.014	0.0001	0.00001	0.0078	0.05	0.46
746724.80	4308127.60	185.4	1-HR	4TH	83.8	81.7	0.01	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.00001	0.0210	0.02	0.25
747096.10	4307567.20	185.4	1-HR	4TH	83.5	81.5	0.03	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0061	0.03	0.34
746710.10	4308187.70	185.4	1-HR	4TH	83.4	81.3	0.01	20.17	0.004	0.004	0.001	0.000	0.002	0.012	0.0004	0.00001	0.0236	0.04	0.35
747057.80	4307611.40	185.3	1-HR	4TH	83.5	81.4	0.03	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0072	0.03	0.33
747035.80	4307671.60	185.1	1-HR	4TH	82.8	80.8	0.03	20.94	0.017	0.018	0.002	0.001	0.002	0.014	0.0001	0.00001	0.0083	0.05	0.46
747091.80	4307598.70	185.1	1-HR	4TH	83.4	81.3	0.03	19.95	0.016	0.017	0.001	0.001	0.001	0.010	0.0001	0.00001	0.0071	0.03	0.34
747137.10	4307551.30	185.1	1-HR	4TH	83.3	81.3	0.03	19.95	0.015	0.016	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0060	0.03	0.34
746755.50	4308125.30	184.9	1-HR	4TH	83.5	81.5	0.01	19.60	0.002	0.002	0.000	0.000	0.001	0.008	0.0003	0.00001	0.0202	0.02	0.25
747125.80	4307586.00	184.9	1-HR	4TH	83.3	81.2	0.03	19.95	0.015	0.016	0.002	0.001	0.001	0.010	0.0001	0.00001	0.0070	0.03	0.34
747069.90	4307682.90	184.7	1-HR	4TH	82.2	80.2	0.03	21.76	0.016	0.017	0.002	0.001	0.002	0.015	0.0002	0.00001	0.0109	0.05	0.49
747178.00	4307535.50	184.7	1-HR	4TH	83.2	81.1	0.03	19.95	0.014	0.016	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0059	0.03	0.34
746759.20	4308186.50	184.5	1-HR	4TH	83.0	80.9	0.01	20.17	0.003	0.004	0.001	0.000	0.002	0.012	0.0004	0.00001	0.0224	0.04	0.35
747219.00	4307519.60	184.4	1-HR	4TH	83.0	81.0	0.03	19.95	0.014	0.015	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0058	0.03	0.34
747259.40	4307457.10	184.3	1-HR	4TH	83.0	81.0	0.03	19.95	0.014	0.015	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0046	0.03	0.34
747104.00	4307694.10	184.1	1-HR	4TH	81.9	79.9	0.03	21.76	0.015	0.017	0.002	0.001	0.002	0.015	0.0002	0.00001	0.0115	0.05	0.49
746808.40	4308185.20	184.1	1-HR	4TH	82.4	80.5	0.02	20.61	0.007	0.008	0.001	0.001	0.002	0.015	0.0003	0.00001	0.0230	0.05	0.46
747260.00	4307503.80	184.1	1-HR	4TH	82.9	80.8	0.03	19.95	0.013	0.014	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0057	0.03	0.34
746800.70	4308123.30	184.1	1-HR	4TH	82.8	80.7	0.01	20.17	0.003	0.003	0.001	0.000	0.002	0.012	0.0003	0.00001	0.0238	0.04	0.35
747143.30	4307629.30	184.0	1-HR	4TH	82.2	80.2	0.03	20.94	0.015	0.016	0.002	0.001	0.002	0.014	0.0001	0.00001	0.0078	0.05	0.46
747296.30	4307438.80	183.9	1-HR	4TH	82.8	80.7	0.03	19.95	0.013	0.015	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0044	0.03	0.34
746857.60	4308184.00	183.8	1-HR	4TH	82.9	81.0	0.02	19.30	0.006	0.006	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0238	0.04	0.42
747128.30	4307700.20	183.7	1-HR	4TH	81.7	79.7	0.03	21.76	0.014	0.016	0.002	0.001	0.002	0.015	0.0002	0.00001	0.0118	0.05	0.49
747179.00	4307615.80	183.7	1-HR	4TH	82.8	80.8	0.03	19.68	0.013	0.015	0.002	0.001	0.002	0.012	0.0001	0.00001	0.0081	0.04	0.38
747333.20	4307420.40	183.7	1-HR	4TH	82.5	80.4	0.03	20.26	0.013	0.014	0.002	0.002	0.002	0.012	0.0002	0.00001	0.0070	0.04	0.39
747200.00	4307600.00	183.6	1-HR	4TH	82.7	80.7	0.03	19.68	0.013	0.014	0.002	0.001	0.002	0.012	0.0001	0.00001	0.0077	0.04	0.38
747300.00	4307500.00	183.6	1-HR	4TH	82.6	80.6	0.03	19.95	0.012	0.014	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0059	0.03	0.34
747251.20	4307552.80	183.5	1-HR	4TH	82.6	80.5	0.03	19.95	0.012	0.014	0.002	0.001	0.002	0.010	0.0001	0.00001	0.0071	0.03	0.34
746906.80	4308182.70	183.5	1-HR	4TH	82.8	80.9	0.02	19.30	0.005	0.006	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0228	0.04	0.42
747370.10	4307402.10	183.5	1-HR	4TH	82.4	80.3	0.03	20.26	0.012	0.014	0.002	0.002	0.002	0.013	0.0002	0.00001	0.0069	0.04	0.39

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
747214.60	4307602.20	183.4	1-HR	4TH	82.6	80.6	0.03	19.68	0.012	0.014	0.002	0.001	0.002	0.012	0.0001	0.00001	0.0079	0.04	0.38
747407.00	4307383.70	183.3	1-HR	4TH	82.3	80.3	0.03	20.26	0.012	0.013	0.002	0.002	0.002	0.013	0.0002	0.00001	0.0068	0.04	0.39
746955.90	4308181.40	183.3	1-HR	4TH	82.7	80.8	0.02	19.30	0.005	0.005	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0219	0.05	0.42
747154.10	4307712.20	183.3	1-HR	4TH	81.4	79.4	0.03	21.76	0.014	0.015	0.002	0.001	0.002	0.015	0.0002	0.00001	0.0123	0.05	0.49
746845.90	4308121.30	183.2	1-HR	4TH	82.3	80.3	0.01	20.17	0.003	0.003	0.001	0.000	0.002	0.012	0.0003	0.00001	0.0229	0.04	0.35
747400.00	4307400.00	183.1	1-HR	4TH	82.2	80.1	0.03	20.26	0.012	0.013	0.002	0.002	0.002	0.013	0.0002	0.00001	0.0072	0.04	0.39
747250.30	4307588.60	183.0	1-HR	4TH	82.4	80.4	0.03	19.68	0.012	0.013	0.002	0.001	0.002	0.012	0.0001	0.00001	0.0078	0.04	0.38
747451.40	4307367.90	183.0	1-HR	4TH	82.1	80.1	0.03	20.26	0.012	0.013	0.002	0.002	0.002	0.013	0.0002	0.00001	0.0068	0.04	0.39
747249.30	4307599.10	183.0	1-HR	4TH	82.4	80.4	0.03	19.68	0.012	0.013	0.002	0.001	0.002	0.012	0.0001	0.00001	0.0081	0.04	0.38
747005.10	4308180.20	182.8	1-HR	4TH	83.1	81.1	0.02	18.13	0.005	0.005	0.001	0.001	0.002	0.013	0.0003	0.00001	0.0179	0.05	0.42
747248.10	4307630.90	182.8	1-HR	4TH	81.2	79.2	0.03	21.76	0.012	0.013	0.003	0.002	0.002	0.015	0.0002	0.00001	0.0104	0.05	0.50
747179.80	4307724.30	182.8	1-HR	4TH	81.4	79.5	0.02	21.46	0.002	0.002	0.001	0.001	0.001	0.010	0.0002	0.00001	0.0114	0.03	0.31
747247.40	4307645.40	182.7	1-HR	4TH	81.2	79.2	0.03	21.76	0.012	0.013	0.003	0.002	0.002	0.015	0.0002	0.00001	0.0108	0.05	0.50
747495.70	4307352.00	182.6	1-HR	4TH	82.9	81.0	0.03	18.15	0.011	0.012	0.002	0.002	0.002	0.015	0.0002	0.00001	0.0062	0.04	0.45
747300.70	4307555.10	182.6	1-HR	4TH	82.1	80.1	0.03	19.95	0.011	0.013	0.002	0.002	0.002	0.010	0.0001	0.00001	0.0075	0.04	0.34
747246.00	4307673.20	182.5	1-HR	4TH	81.0	79.0	0.03	21.76	0.011	0.013	0.003	0.002	0.002	0.015	0.0002	0.00001	0.0116	0.05	0.50
747204.60	4307740.00	182.5	1-HR	4TH	81.3	79.3	0.02	21.46	0.002	0.002	0.001	0.001	0.001	0.010	0.0002	0.00001	0.0121	0.03	0.31
746891.80	4308119.40	182.4	1-HR	4TH	81.9	79.9	0.01	20.17	0.002	0.003	0.001	0.000	0.002	0.012	0.0003	0.00001	0.0220	0.04	0.35
747400.00	4307500.00	182.4	1-HR	4TH	82.0	80.0	0.03	19.95	0.010	0.011	0.003	0.002	0.002	0.010	0.0001	0.00001	0.0067	0.04	0.34
747054.30	4308178.90	182.3	1-HR	4TH	82.8	80.8	0.02	18.13	0.004	0.005	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0173	0.05	0.42
747245.60	4307691.70	182.3	1-HR	4TH	80.9	78.9	0.03	21.76	0.011	0.013	0.003	0.002	0.002	0.015	0.0002	0.00001	0.0121	0.05	0.49
747540.10	4307336.10	182.2	1-HR	4TH	82.7	80.8	0.03	18.15	0.011	0.012	0.002	0.003	0.002	0.015	0.0002	0.00001	0.0062	0.04	0.45
747243.80	4307715.50	182.1	1-HR	4TH	81.1	79.2	0.02	21.46	0.002	0.002	0.001	0.001	0.001	0.010	0.0002	0.00001	0.0115	0.03	0.31
747229.40	4307755.70	182.1	1-HR	4TH	81.6	79.6	0.01	20.52	0.001	0.001	0.001	0.001	0.001	0.011	0.0003	0.00001	0.0147	0.03	0.32
747243.70	4307738.00	182.0	1-HR	4TH	81.1	79.1	0.02	21.46	0.002	0.002	0.001	0.001	0.001	0.010	0.0002	0.00001	0.0122	0.03	0.31
747227.90	4307799.60	182.0	1-HR	4TH	81.1	79.1	0.02	21.46	0.002	0.002	0.001	0.001	0.001	0.010	0.0002	0.00001	0.0140	0.03	0.31
747500.00	4307400.00	182.0	1-HR	4TH	81.8	79.8	0.03	19.95	0.010	0.011	0.003	0.003	0.002	0.010	0.0001	0.00001	0.0050	0.04	0.35
747241.70	4307757.80	181.9	1-HR	4TH	81.5	79.5	0.01	20.52	0.001	0.001	0.001	0.001	0.001	0.011	0.0003	0.00001	0.0148	0.03	0.32
747350.30	4307557.40	181.9	1-HR	4TH	81.8	79.9	0.03	19.68	0.010	0.011	0.003	0.002	0.002	0.012	0.0001	0.00001	0.0076	0.04	0.39
746937.70	4308117.50	181.8	1-HR	4TH	81.6	79.6	0.02	20.17	0.002	0.003	0.001	0.001	0.002	0.012	0.0003	0.00001	0.0212	0.04	0.35
747584.50	4307320.20	181.8	1-HR	4TH	82.5	80.6	0.03	18.15	0.011	0.012	0.002	0.003	0.002	0.015	0.0002	0.00001	0.0063	0.04	0.45
747103.50	4308177.70	181.8	1-HR	4TH	82.6	80.6	0.02	18.13	0.004	0.004	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0166	0.05	0.42
747241.80	4307784.30	181.8	1-HR	4TH	81.3	79.4	0.01	20.61	0.001	0.001	0.001	0.001	0.002	0.012	0.0002	0.00001	0.0130	0.03	0.36
747399.90	4307559.60	181.4	1-HR	4TH	81.6	79.6	0.03	19.68	0.009	0.010	0.003	0.002	0.002	0.012	0.0001	0.00001	0.0081	0.04	0.39
747628.80	4307304.30	181.4	1-HR	4TH	82.3	80.3	0.03	18.15	0.011	0.011	0.002	0.003	0.002	0.015	0.0002	0.00001	0.0063	0.04	0.45
747152.60	4308176.40	181.3	1-HR	4TH	82.3	80.3	0.02	18.13	0.003	0.004	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0160	0.05	0.42
746983.50	4308115.60	181.3	1-HR	4TH	81.3	79.3	0.02	20.17	0.002	0.002	0.001	0.001	0.002	0.012	0.0003	0.00001	0.0205	0.04	0.36
747500.00	4307500.00	181.2	1-HR	4TH	81.4	79.4	0.04	19.95	0.009	0.010	0.003	0.004	0.002	0.010	0.0001	0.00001	0.0075	0.04	0.35
747239.90	4307830.60	181.2	1-HR	4TH	80.4	78.3	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.00001	0.0179	0.03	0.33
747226.40	4307843.60	181.1	1-HR	4TH	80.3	78.3	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.00001	0.0180	0.03	0.33
747673.20	4307288.40	180.9	1-HR	4TH	82.1	80.1	0.03	18.15	0.011	0.011	0.002	0.003	0.002	0.015	0.0002	0.00001	0.0063	0.04	0.45
747600.00	4307400.00	180.9	1-HR	4TH	81.2	79.3	0.04	19.95	0.009	0.010	0.003	0.004	0.002	0.010	0.0001	0.00001	0.0057	0.04	0.35
747700.00	4307300.00	180.9	1-HR	4TH	81.1	79.0	0.03	20.26	0.010	0.011	0.002	0.003	0.002	0.013	0.0002	0.00001	0.0075	0.04	0.40
747449.50	4307561.90	180.8	1-HR	4TH	80.2	78.2	0.04	21.76	0.008	0.010	0.004	0.004	0.002	0.015	0.0002	0.00001	0.0096	0.05	0.50
747029.40	4308113.70	180.8	1-HR	4TH	81.1	79.0	0.02	20.17	0.002	0.002	0.001	0.001	0.002	0.012	0.0003	0.00001	0.0198	0.04	0.36
747201.80	4308175.20	180.7	1-HR	4TH	82.0	80.0	0.02	18.13	0.003	0.003	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0155	0.05	0.42
747158.50	4308003.70	180.5	1-HR	4TH	81.3	79.3	0.01	19.60	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.00001	0.0154	0.02	0.25
747717.50	4307272.50	180.5	1-HR	4TH	81.8	79.9	0.03	18.15	0.011	0.011	0.002	0.003	0.002	0.015	0.0002	0.00001	0.0063	0.04	0.46
747075.30	4308111.90	180.4	1-HR	4TH	80.5	78.6	0.02	20.61	0.004	0.005	0.001	0.001	0.002	0.015	0.0003	0.00001	0.0205	0.05	0.48
747157.10	4308039.20	180.3	1-HR	4TH	81.5	79.5	0.01	18.93	0.001	0.001	0.001	0.001	0.001	0.009	0.0003	0.00001	0.0168	0.03	0.29
747499.00	4307564.20	180.2	1-HR	4TH	79.9	77.9	0.04	21.76	0.008	0.009	0.004	0.005	0.002	0.015	0.0002	0.00001	0.0099	0.05	0.51

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
747121.20	4308110.00	180.2	1-HR	4TH	81.1	79.3	0.02	19.30	0.003	0.004	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0214	0.05	0.43
747238.10	4307876.90	180.1	1-HR	4TH	79.9	77.8	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.00001	0.0177	0.03	0.33
747159.80	4307968.20	180.1	1-HR	4TH	80.4	78.5	0.01	20.91	0.001	0.001	0.001	0.001	0.001	0.007	0.0003	0.00001	0.0153	0.02	0.21
747224.80	4307887.50	180.1	1-HR	4TH	79.8	77.8	0.02	22.04	0.002	0.002	0.001	0.001	0.002	0.011	0.0004	0.00001	0.0178	0.03	0.33
747200.00	4308000.00	180.1	1-HR	4TH	81.1	79.1	0.01	19.60	0.001	0.001	0.001	0.001	0.001	0.008	0.0003	0.00001	0.0150	0.02	0.25
747161.20	4307932.70	180.1	1-HR	4TH	80.4	78.5	0.01	20.91	0.001	0.001	0.001	0.001	0.001	0.007	0.0003	0.00001	0.0151	0.02	0.21
747600.00	4307500.00	180.1	1-HR	4TH	80.5	78.5	0.04	20.50	0.007	0.008	0.003	0.007	0.002	0.013	0.0002	0.00001	0.0093	0.04	0.43
747761.90	4307256.60	180.0	1-HR	4TH	81.6	79.7	0.03	18.15	0.011	0.011	0.002	0.003	0.002	0.015	0.0002	0.00001	0.0063	0.04	0.46
747167.00	4308108.10	179.9	1-HR	4TH	81.0	79.1	0.02	19.30	0.003	0.003	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0208	0.05	0.43
747251.00	4308173.90	179.9	1-HR	4TH	82.2	80.1	0.02	17.26	0.001	0.001	0.001	0.001	0.002	0.012	0.0004	0.00001	0.0132	0.04	0.35
747185.00	4307931.00	179.8	1-HR	4TH	80.3	78.4	0.01	20.91	0.001	0.001	0.001	0.001	0.001	0.007	0.0003	0.00001	0.0149	0.02	0.21
747700.00	4307400.00	179.8	1-HR	4TH	80.7	78.7	0.04	19.95	0.008	0.009	0.002	0.006	0.002	0.010	0.0001	0.00001	0.0063	0.04	0.35
747800.00	4307300.00	179.7	1-HR	4TH	80.5	78.5	0.03	20.26	0.010	0.010	0.002	0.004	0.002	0.013	0.0003	0.00001	0.0084	0.04	0.40
747181.70	4308050.60	179.7	1-HR	4TH	80.5	78.5	0.02	20.17	0.001	0.001	0.001	0.001	0.002	0.012	0.0003	0.00001	0.0193	0.04	0.36
747212.90	4308106.20	179.7	1-HR	4TH	80.8	79.0	0.02	19.30	0.003	0.003	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0203	0.05	0.43
747228.70	4308108.50	179.7	1-HR	4TH	80.8	79.0	0.02	19.30	0.002	0.003	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0201	0.05	0.43
747806.30	4307240.70	179.6	1-HR	4TH	81.4	79.5	0.03	18.15	0.011	0.011	0.002	0.003	0.002	0.015	0.0002	0.00001	0.0063	0.04	0.46
747232.50	4308015.90	179.5	1-HR	4TH	81.2	79.1	0.01	18.93	0.001	0.001	0.001	0.001	0.001	0.009	0.0003	0.00001	0.0163	0.03	0.29
747234.30	4307969.60	179.5	1-HR	4TH	80.4	78.5	0.01	20.33	0.001	0.001	0.001	0.001	0.001	0.007	0.0002	0.00001	0.0168	0.02	0.23
747548.60	4307566.50	179.5	1-HR	4TH	79.5	77.6	0.04	21.76	0.007	0.008	0.004	0.008	0.002	0.015	0.0002	0.00001	0.0102	0.05	0.51
747223.30	4307931.40	179.4	1-HR	4TH	80.1	78.2	0.01	20.91	0.001	0.001	0.001	0.001	0.001	0.007	0.0003	0.00001	0.0147	0.02	0.21
747253.40	4308108.50	179.4	1-HR	4TH	81.3	79.4	0.02	18.13	0.002	0.003	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0168	0.05	0.43
747200.50	4308053.00	179.4	1-HR	4TH	80.4	78.4	0.02	20.17	0.001	0.001	0.001	0.001	0.002	0.012	0.0003	0.00001	0.0190	0.04	0.36
747236.20	4307923.20	179.3	1-HR	4TH	80.0	78.1	0.01	20.91	0.001	0.001	0.001	0.001	0.001	0.007	0.0003	0.00001	0.0145	0.02	0.21
747850.60	4307224.80	179.2	1-HR	4TH	81.2	79.3	0.03	18.15	0.012	0.012	0.001	0.003	0.002	0.015	0.0002	0.00001	0.0063	0.04	0.46
747216.30	4308054.20	179.1	1-HR	4TH	80.2	78.2	0.02	20.17	0.001	0.001	0.001	0.001	0.002	0.012	0.0003	0.00001	0.0188	0.04	0.36
747300.10	4308172.60	179.0	1-HR	4TH	81.7	79.6	0.02	17.26	0.001	0.001	0.001	0.001	0.002	0.012	0.0004	0.00001	0.0128	0.04	0.35
747298.90	4308105.20	179.0	1-HR	4TH	81.1	79.2	0.02	18.13	0.002	0.002	0.001	0.001	0.002	0.014	0.0003	0.00001	0.0163	0.05	0.43
747598.20	4307568.80	178.9	1-HR	4TH	79.2	77.3	0.04	21.76	0.006	0.007	0.004	0.011	0.002	0.015	0.0002	0.00001	0.0104	0.05	0.51
747214.60	4308080.20	178.9	1-HR	4TH	80.4	78.6	0.02	19.30	0.003	0.003	0.001	0.001	0.002	0.014	0.0002	0.00001	0.0207	0.05	0.43
747895.00	4307209.00	178.7	1-HR	4TH	81.0	79.1	0.03	18.15	0.012	0.012	0.001	0.002	0.002	0.015	0.0002	0.00001	0.0063	0.04	0.46
747230.60	4308062.20	178.7	1-HR	4TH	80.0	78.0	0.02	20.17	0.001	0.001	0.001	0.001	0.002	0.012	0.0003	0.00001	0.0184	0.04	0.36
747700.00	4307500.00	178.7	1-HR	4TH	79.8	77.8	0.04	20.50	0.006	0.007	0.003	0.013	0.002	0.013	0.0002	0.00001	0.0097	0.04	0.43
747344.30	4308102.00	178.6	1-HR	4TH	80.9	79.0	0.02	18.13	0.002	0.002	0.002	0.001	0.002	0.014	0.0003	0.00001	0.0160	0.05	0.43
747800.00	4307400.00	178.6	1-HR	4TH	80.1	78.1	0.04	19.95	0.007	0.008	0.003	0.007	0.002	0.010	0.0001	0.00001	0.0069	0.04	0.36
747937.00	4307210.10	178.5	1-HR	4TH	80.8	78.9	0.03	18.15	0.012	0.012	0.002	0.002	0.002	0.015	0.0002	0.00001	0.0067	0.04	0.46
747647.70	4307571.10	178.4	1-HR	4TH	79.0	77.0	0.05	21.76	0.005	0.006	0.004	0.018	0.002	0.015	0.0002	0.00001	0.0106	0.05	0.51
747900.00	4307300.00	178.4	1-HR	4TH	80.0	78.0	0.04	19.95	0.010	0.010	0.003	0.004	0.002	0.011	0.0001	0.00001	0.0055	0.04	0.36
747978.90	4307211.30	178.2	1-HR	4TH	80.7	78.8	0.03	18.15	0.012	0.012	0.002	0.002	0.002	0.015	0.0002	0.00001	0.0070	0.04	0.47
747389.70	4308098.80	178.1	1-HR	4TH	80.7	78.8	0.03	18.13	0.002	0.002	0.002	0.001	0.002	0.014	0.0003	0.00001	0.0156	0.05	0.43
747400.00	4308100.00	178.1	1-HR	4TH	80.7	78.7	0.03	18.13	0.002	0.002	0.002	0.001	0.002	0.014	0.0003	0.00001	0.0155	0.05	0.43
747349.30	4308171.40	178.1	1-HR	4TH	81.2	79.1	0.02	17.26	0.001	0.001	0.001	0.001	0.002	0.012	0.0004	0.00001	0.0124	0.04	0.35
748020.90	4307212.40	177.9	1-HR	4TH	80.5	78.6	0.03	18.15	0.012	0.012	0.003	0.002	0.002	0.015	0.0002	0.00001	0.0073	0.04	0.47
747432.00	4308092.60	177.7	1-HR	4TH	80.5	78.6	0.03	18.13	0.002	0.002	0.002	0.002	0.002	0.014	0.0003	0.00001	0.0154	0.05	0.43
747474.40	4308086.40	177.7	1-HR	4TH	80.5	78.6	0.03	18.13	0.002	0.002	0.002	0.002	0.002	0.014	0.0003	0.00001	0.0152	0.05	0.43
747800.00	4307500.00	177.7	1-HR	4TH	78.6	76.7	0.05	21.76	0.006	0.006	0.011	0.018	0.003	0.016	0.0002	0.00001	0.0098	0.05	0.52
747697.30	4307573.30	177.6	1-HR	4TH	78.6	76.6	0.05	21.76	0.005	0.006	0.004	0.031	0.003	0.016	0.0002	0.00001	0.0108	0.05	0.51
748062.80	4307213.60	177.4	1-HR	4TH	79.3	77.3	0.03	20.26	0.012	0.012	0.004	0.002	0.002	0.013	0.0003	0.00001	0.0084	0.04	0.41
747500.00	4308100.00	177.4	1-HR	4TH	80.9	78.8	0.02	17.26	0.001	0.001	0.001	0.001	0.002	0.012	0.0003	0.00001	0.0134	0.04	0.35
747746.90	4307575.60	177.4	1-HR	4TH	78.4	76.5	0.05	21.76	0.005	0.005	0.021	0.056	0.003	0.015	0.0002	0.00001	0.0109	0.05	0.51
747900.00	4307400.00	177.3	1-HR	4TH	79.0	77.0	0.04	20.77	0.007	0.008	0.008	0.006	0.002	0.011	0.0002	0.00001	0.0088	0.04	0.39

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748000.00	4307300.00	177.2	1-HR	4TH	79.3	77.4	0.04	19.95	0.010	0.010	0.005	0.003	0.002	0.011	0.0001	0.00001	0.0060	0.04	0.36
747398.50	4308170.10	177.1	1-HR	4TH	80.7	78.7	0.02	17.26	0.001	0.001	0.001	0.001	0.002	0.012	0.0004	0.00001	0.0120	0.04	0.35
747522.80	4308077.70	176.9	1-HR	4TH	80.1	78.2	0.03	18.13	0.002	0.002	0.002	0.002	0.002	0.014	0.0003	0.00001	0.0149	0.05	0.43
748104.80	4307214.80	176.8	1-HR	4TH	79.0	77.0	0.03	20.26	0.013	0.012	0.005	0.002	0.002	0.013	0.0003	0.00001	0.0087	0.04	0.41
747796.50	4307577.90	176.8	1-HR	4TH	78.1	76.1	0.05	21.76	0.005	0.005	0.080	0.104	0.003	0.015	0.0002	0.00001	0.0110	0.05	0.52
748147.50	4307173.80	176.8	1-HR	4TH	80.0	78.1	0.03	18.15	0.014	0.014	0.004	0.002	0.003	0.015	0.0002	0.00001	0.0074	0.04	0.47
748114.80	4307131.20	176.6	1-HR	4TH	79.8	78.0	0.03	18.15	0.015	0.014	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0064	0.04	0.47
748148.20	4307131.70	176.4	1-HR	4TH	79.8	77.9	0.03	18.15	0.015	0.015	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0066	0.04	0.47
747900.00	4307500.00	176.4	1-HR	4TH	77.9	76.0	0.05	21.76	0.006	0.006	0.046	0.010	0.003	0.016	0.0002	0.00001	0.0100	0.05	0.52
747442.10	4308168.40	176.3	1-HR	4TH	80.4	78.3	0.02	17.26	0.001	0.001	0.001	0.001	0.002	0.012	0.0004	0.00001	0.0117	0.04	0.35
748146.70	4307215.90	176.3	1-HR	4TH	78.7	76.8	0.03	20.26	0.013	0.012	0.006	0.002	0.002	0.013	0.0003	0.00001	0.0090	0.04	0.41
747571.20	4308069.10	176.3	1-HR	4TH	79.7	77.8	0.03	18.13	0.002	0.002	0.002	0.003	0.002	0.014	0.0003	0.00001	0.0147	0.05	0.44
748155.30	4307117.00	176.2	1-HR	4TH	79.7	77.8	0.02	18.15	0.015	0.015	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0064	0.04	0.47
747619.60	4308060.40	176.1	1-HR	4TH	79.7	77.8	0.03	18.13	0.002	0.002	0.002	0.003	0.002	0.014	0.0003	0.00001	0.0145	0.05	0.44
747846.00	4307580.20	176.0	1-HR	4TH	77.7	75.7	0.05	21.76	0.005	0.005	0.135	0.081	0.003	0.016	0.0002	0.00001	0.0111	0.05	0.52
748100.00	4307300.00	176.0	1-HR	4TH	78.7	76.8	0.03	19.95	0.011	0.010	0.011	0.003	0.002	0.011	0.0001	0.00001	0.0065	0.04	0.37
748000.00	4307400.00	176.0	1-HR	4TH	78.4	76.5	0.04	20.50	0.007	0.007	0.022	0.005	0.002	0.013	0.0002	0.00001	0.0090	0.05	0.44
748200.00	4307200.00	175.8	1-HR	4TH	78.5	76.5	0.03	20.26	0.014	0.013	0.007	0.002	0.002	0.013	0.0003	0.00001	0.0090	0.04	0.42
748195.80	4307102.90	175.8	1-HR	4TH	79.4	77.6	0.02	18.15	0.016	0.016	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0064	0.04	0.48
747485.60	4308166.70	175.7	1-HR	4TH	79.6	77.8	0.03	17.68	0.005	0.005	0.001	0.001	0.002	0.016	0.0003	0.00001	0.0127	0.05	0.53
748200.00	4307100.00	175.7	1-HR	4TH	79.4	77.5	0.02	18.15	0.016	0.016	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0063	0.04	0.48
747994.70	4307587.00	175.7	1-HR	4TH	77.1	75.2	0.02	21.46	0.001	0.001	0.192	1.282	0.002	0.010	0.0002	0.00001	0.0106	0.03	0.32
747600.00	4308100.00	175.7	1-HR	4TH	80.0	78.0	0.02	17.26	0.001	0.001	0.001	0.002	0.002	0.012	0.0003	0.00001	0.0125	0.04	0.35
747945.20	4307584.70	175.7	1-HR	4TH	77.4	75.5	0.02	21.46	0.001	0.001	0.160	0.726	0.002	0.010	0.0002	0.00001	0.0105	0.03	0.32
747895.60	4307582.50	175.4	1-HR	4TH	77.4	75.6	0.05	21.46	0.004	0.005	0.121	0.176	0.003	0.017	0.0002	0.00001	0.0108	0.06	0.55
748236.30	4307088.80	175.4	1-HR	4TH	79.3	77.4	0.02	18.15	0.017	0.016	0.003	0.001	0.003	0.015	0.0002	0.00001	0.0064	0.04	0.48
747668.00	4308051.70	175.4	1-HR	4TH	79.3	77.4	0.03	18.13	0.002	0.002	0.002	0.003	0.002	0.014	0.0003	0.00001	0.0143	0.05	0.44
748000.00	4307500.00	175.3	1-HR	4TH	77.3	75.4	0.05	21.76	0.006	0.006	0.104	0.040	0.003	0.016	0.0002	0.00001	0.0102	0.05	0.52
747529.20	4308165.00	175.3	1-HR	4TH	79.4	77.6	0.03	17.68	0.005	0.005	0.002	0.002	0.002	0.016	0.0003	0.00001	0.0125	0.05	0.53
748300.00	4307100.00	175.1	1-HR	4TH	79.1	77.3	0.03	18.15	0.018	0.017	0.005	0.002	0.003	0.015	0.0002	0.00001	0.0070	0.04	0.48
748276.80	4307074.60	174.9	1-HR	4TH	79.0	77.2	0.02	18.15	0.017	0.017	0.004	0.001	0.003	0.016	0.0002	0.00001	0.0064	0.04	0.48
747572.70	4308163.30	174.9	1-HR	4TH	79.2	77.3	0.03	17.68	0.005	0.005	0.002	0.002	0.002	0.016	0.0003	0.00001	0.0122	0.05	0.53
748200.00	4307300.00	174.8	1-HR	4TH	77.7	75.8	0.04	20.77	0.013	0.011	0.027	0.006	0.002	0.012	0.0002	0.00001	0.0082	0.04	0.40
748317.30	4307060.50	174.7	1-HR	4TH	78.9	77.0	0.02	18.15	0.018	0.017	0.004	0.001	0.003	0.016	0.0002	0.00001	0.0064	0.04	0.48
747716.30	4308043.00	174.7	1-HR	4TH	78.9	77.1	0.03	18.13	0.002	0.002	0.002	0.004	0.002	0.014	0.0003	0.00001	0.0140	0.05	0.44
748044.30	4307589.30	174.6	1-HR	4TH	77.3	75.4	0.02	20.52	0.001	0.001	0.184	0.762	0.002	0.011	0.0003	0.00001	0.0123	0.03	0.34
748100.00	4307500.00	174.5	1-HR	4TH	76.8	74.9	0.08	21.76	0.008	0.006	0.155	0.149	0.003	0.016	0.0002	0.00001	0.0103	0.05	0.53
748100.00	4307400.00	174.5	1-HR	4TH	77.7	75.7	0.04	20.50	0.008	0.008	0.053	0.012	0.002	0.013	0.0002	0.00001	0.0092	0.05	0.44
748395.30	4307108.00	174.5	1-HR	4TH	78.8	76.9	0.04	18.15	0.022	0.019	0.009	0.002	0.003	0.016	0.0002	0.00001	0.0077	0.04	0.48
748300.00	4307200.00	174.4	1-HR	4TH	77.8	75.8	0.04	20.26	0.017	0.015	0.014	0.003	0.002	0.013	0.0003	0.00001	0.0096	0.04	0.42
747764.20	4308033.70	174.4	1-HR	4TH	78.8	76.9	0.03	18.13	0.002	0.002	0.002	0.005	0.002	0.014	0.0003	0.00001	0.0139	0.05	0.44
747616.30	4308161.50	174.4	1-HR	4TH	79.0	77.1	0.03	17.68	0.004	0.005	0.002	0.002	0.002	0.016	0.0003	0.00001	0.0120	0.05	0.53
748357.90	4307046.30	174.3	1-HR	4TH	78.7	76.8	0.03	18.15	0.019	0.018	0.004	0.001	0.003	0.016	0.0002	0.00001	0.0064	0.04	0.48
748396.80	4307070.10	174.2	1-HR	4TH	78.7	76.8	0.03	18.15	0.021	0.019	0.006	0.002	0.003	0.016	0.0002	0.00001	0.0070	0.04	0.48
748436.40	4307110.10	174.2	1-HR	4TH	77.6	75.7	0.04	20.26	0.026	0.021	0.012	0.003	0.003	0.013	0.0003	0.00001	0.0087	0.04	0.42
748398.40	4307032.20	174.0	1-HR	4TH	78.5	76.7	0.03	18.15	0.021	0.019	0.005	0.001	0.003	0.016	0.0002	0.00001	0.0064	0.04	0.48
748093.90	4307591.60	173.9	1-HR	4TH	76.2	74.3	0.06	22.04	0.002	0.002	0.194	0.692	0.002	0.012	0.0004	0.00001	0.0132	0.04	0.35
747665.40	4308159.50	173.9	1-HR	4TH	79.1	77.4	0.03	16.81	0.004	0.004	0.001	0.002	0.002	0.014	0.0002	0.00001	0.0149	0.05	0.46
747812.00	4308024.40	173.9	1-HR	4TH	79.1	77.1	0.01	17.26	0.000	0.000	0.001	0.004	0.002	0.012	0.0003	0.00001	0.0126	0.04	0.37
747700.00	4308100.00	173.9	1-HR	4TH	79.1	77.1	0.02	17.26	0.001	0.001	0.001	0.002	0.002	0.012	0.0003	0.00001	0.0117	0.04	0.35
747714.50	4308157.50	173.7	1-HR	4TH	79.0	77.3	0.04	16.81	0.004	0.004	0.001	0.002	0.002	0.014	0.0002	0.00001	0.0146	0.05	0.46

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748477.50	4307112.10	173.6	1-HR	4TH	77.3	75.4	0.05	20.26	0.031	0.024	0.015	0.004	0.003	0.014	0.0003	0.00001	0.0089	0.04	0.43
747859.80	4308015.10	173.4	1-HR	4TH	78.9	76.8	0.01	17.26	0.000	0.000	0.001	0.004	0.002	0.012	0.0003	0.00001	0.0124	0.04	0.37
748440.90	4307607.60	173.4	1-HR	4TH	73.5	71.7	5.41	22.04	0.071	0.051	0.086	0.101	0.002	0.012	0.0004	0.00001	0.0115	0.04	0.36
747756.30	4308152.30	173.4	1-HR	4TH	78.8	77.2	0.04	16.81	0.004	0.004	0.001	0.002	0.002	0.014	0.0002	0.00001	0.0145	0.05	0.46
748300.00	4307300.00	173.3	1-HR	4TH	76.9	75.0	0.07	20.77	0.019	0.014	0.047	0.013	0.002	0.012	0.0002	0.00001	0.0085	0.04	0.40
748200.00	4307400.00	173.3	1-HR	4TH	76.3	74.4	0.08	21.76	0.013	0.010	0.080	0.032	0.003	0.016	0.0002	0.00001	0.0092	0.05	0.54
748400.00	4307200.00	173.2	1-HR	4TH	77.3	75.4	0.06	19.95	0.026	0.020	0.019	0.005	0.002	0.011	0.0001	0.00001	0.0061	0.04	0.38
748200.00	4307500.00	173.2	1-HR	4TH	76.1	74.2	0.20	21.76	0.017	0.011	0.166	0.206	0.003	0.016	0.0002	0.00001	0.0103	0.06	0.53
747798.10	4308147.10	173.2	1-HR	4TH	78.7	77.1	0.04	16.81	0.004	0.004	0.001	0.002	0.002	0.014	0.0002	0.00001	0.0143	0.05	0.47
748143.50	4307593.90	173.2	1-HR	4TH	75.9	73.9	0.22	22.04	0.003	0.002	0.179	0.567	0.002	0.012	0.0004	0.00001	0.0130	0.04	0.35
748391.30	4307605.30	173.2	1-HR	4TH	73.9	72.0	4.45	22.04	0.053	0.035	0.098	0.128	0.002	0.012	0.0004	0.00001	0.0117	0.04	0.35
749031.30	4306340.10	173.2	1-HR	4TH	79.4	77.5	0.00	16.04	0.002	0.002	0.000	0.000	0.002	0.007	0.0001	0.00001	0.0012	0.01	0.20
747839.80	4308141.90	173.1	1-HR	4TH	78.7	77.0	0.04	16.81	0.004	0.004	0.001	0.002	0.002	0.014	0.0002	0.00001	0.0141	0.05	0.47
748490.50	4307609.80	173.0	1-HR	4TH	73.0	71.2	6.06	22.04	0.090	0.069	0.076	0.081	0.002	0.012	0.0003	0.00001	0.0112	0.04	0.36
748536.40	4307703.10	173.0	1-HR	4TH	74.7	73.0	6.50	18.29	0.068	0.062	0.050	0.044	0.001	0.007	0.0002	0.00001	0.0100	0.02	0.22
748400.00	4307600.00	173.0	1-HR	4TH	74.8	73.0	2.96	21.46	0.050	0.033	0.115	0.156	0.002	0.010	0.0002	0.00001	0.0107	0.03	0.33
748518.60	4307114.20	172.9	1-HR	4TH	77.0	75.1	0.06	20.26	0.039	0.029	0.019	0.005	0.003	0.014	0.0003	0.00001	0.0091	0.04	0.43
748341.70	4307603.00	172.9	1-HR	4TH	74.3	72.4	3.40	22.04	0.036	0.022	0.111	0.174	0.002	0.012	0.0004	0.00001	0.0120	0.04	0.35
747881.60	4308136.70	172.9	1-HR	4TH	78.6	76.9	0.04	16.81	0.004	0.004	0.001	0.002	0.002	0.014	0.0002	0.00001	0.0139	0.05	0.47
747907.60	4308005.80	172.9	1-HR	4TH	78.6	76.6	0.01	17.26	0.000	0.000	0.001	0.005	0.002	0.012	0.0003	0.00001	0.0123	0.04	0.37
749077.70	4306342.30	172.8	1-HR	4TH	79.2	77.3	0.00	16.04	0.002	0.002	0.000	0.000	0.002	0.007	0.0001	0.00001	0.0013	0.01	0.20
748500.00	4307600.00	172.7	1-HR	4TH	73.0	71.1	5.86	22.04	0.086	0.065	0.079	0.085	0.002	0.012	0.0003	0.00001	0.0112	0.04	0.36
748193.00	4307596.10	172.6	1-HR	4TH	75.5	73.5	0.57	22.04	0.007	0.003	0.161	0.442	0.002	0.012	0.0004	0.00001	0.0128	0.04	0.35
747923.40	4308131.50	172.6	1-HR	4TH	77.4	75.8	0.04	18.92	0.004	0.004	0.001	0.002	0.002	0.013	0.0002	0.00001	0.0116	0.05	0.44
748916.10	4306448.90	172.6	1-HR	4TH	78.1	76.2	0.01	18.06	0.003	0.003	0.000	0.000	0.002	0.008	0.0001	0.00001	0.0011	0.02	0.23
748300.00	4307600.00	172.6	1-HR	4TH	74.6	72.7	2.40	22.04	0.024	0.013	0.125	0.241	0.002	0.012	0.0004	0.00001	0.0122	0.04	0.35
747800.00	4308100.00	172.6	1-HR	4TH	77.9	76.0	0.05	18.13	0.004	0.004	0.002	0.003	0.002	0.015	0.0003	0.00001	0.0125	0.06	0.46
748292.20	4307600.70	172.6	1-HR	4TH	74.7	72.8	2.25	22.04	0.023	0.012	0.126	0.250	0.002	0.012	0.0004	0.00001	0.0122	0.04	0.35
748913.20	4306482.20	172.6	1-HR	4TH	78.9	77.0	0.00	16.47	0.001	0.001	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0015	0.01	0.19
748942.90	4306451.80	172.5	1-HR	4TH	78.0	76.2	0.01	18.06	0.003	0.003	0.000	0.000	0.002	0.008	0.0001	0.00001	0.0012	0.02	0.23
748242.60	4307598.40	172.4	1-HR	4TH	75.1	73.2	1.25	22.04	0.013	0.006	0.143	0.334	0.002	0.012	0.0004	0.00001	0.0125	0.04	0.35
749012.50	4306373.90	172.4	1-HR	4TH	79.1	77.1	0.00	16.04	0.002	0.002	0.000	0.000	0.002	0.007	0.0001	0.00001	0.0013	0.01	0.20
748559.80	4307116.30	172.4	1-HR	4TH	76.7	74.8	0.08	20.26	0.049	0.036	0.023	0.006	0.003	0.014	0.0003	0.00001	0.0094	0.04	0.43
748600.00	4307700.00	172.4	1-HR	4TH	74.0	72.2	6.62	18.86	0.084	0.069	0.059	0.035	0.002	0.012	0.0002	0.00001	0.0135	0.04	0.34
747966.80	4308124.20	172.4	1-HR	4TH	78.6	77.0	0.04	16.23	0.004	0.004	0.001	0.003	0.002	0.012	0.0002	0.00001	0.0118	0.04	0.42
748534.60	4307748.50	172.4	1-HR	4TH	75.1	73.2	5.72	17.70	0.089	0.077	0.036	0.018	0.002	0.011	0.0003	0.00001	0.0117	0.04	0.34
748906.70	4306514.50	172.3	1-HR	4TH	79.0	77.0	0.00	16.18	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0020	0.01	0.17
748300.00	4307400.00	172.3	1-HR	4TH	75.7	73.8	0.16	21.76	0.025	0.016	0.099	0.053	0.003	0.016	0.0002	0.00001	0.0093	0.06	0.54
748300.00	4307500.00	172.2	1-HR	4TH	75.8	73.9	0.24	21.46	0.007	0.004	0.158	0.201	0.002	0.010	0.0002	0.00001	0.0097	0.03	0.33
748500.00	4307200.00	172.2	1-HR	4TH	76.7	74.9	0.10	19.95	0.047	0.033	0.028	0.009	0.002	0.011	0.0001	0.00001	0.0065	0.04	0.38
748540.00	4307612.10	172.2	1-HR	4TH	73.1	71.2	6.39	20.82	0.100	0.081	0.071	0.061	0.002	0.010	0.0004	0.00001	0.0110	0.03	0.29
747955.40	4307996.50	172.1	1-HR	4TH	78.2	76.2	0.01	17.26	0.004	0.000	0.001	0.005	0.002	0.012	0.0003	0.00001	0.0121	0.04	0.37
748559.10	4307145.00	172.0	1-HR	4TH	76.5	74.6	0.09	20.26	0.054	0.039	0.030	0.009	0.003	0.014	0.0003	0.00001	0.0098	0.04	0.43
748400.00	4307300.00	172.0	1-HR	4TH	76.3	74.4	0.12	20.50	0.035	0.024	0.060	0.022	0.003	0.014	0.0002	0.00001	0.0086	0.05	0.46
748010.20	4308116.90	171.9	1-HR	4TH	78.2	76.4	0.04	16.72	0.004	0.004	0.001	0.002	0.002	0.012	0.0002	0.00001	0.0088	0.04	0.41
749000.00	4306400.00	171.9	1-HR	4TH	78.8	76.8	0.00	16.04	0.002	0.001	0.000	0.000	0.002	0.007	0.0001	0.00001	0.0015	0.01	0.20
748973.00	4306446.30	171.9	1-HR	4TH	78.5	76.6	0.00	16.47	0.001	0.001	0.000	0.000	0.002	0.007	0.0001	0.00001	0.0014	0.01	0.19
748993.70	4306407.70	171.8	1-HR	4TH	78.5	76.6	0.00	16.53	0.002	0.001	0.000	0.000	0.002	0.007	0.0001	0.00001	0.0012	0.01	0.18
748538.20	4307657.60	171.7	1-HR	4TH	74.0	72.2	6.01	18.86	0.117	0.101	0.066	0.068	0.001	0.006	0.0002	0.00001	0.0082	0.02	0.20
748400.00	4307500.00	171.7	1-HR	4TH	75.3	73.5	0.76	21.46	0.018	0.011	0.141	0.191	0.002	0.010	0.0002	0.00001	0.0098	0.03	0.33
748400.00	4307400.00	171.7	1-HR	4TH	75.3	73.4	0.31	21.76	0.056	0.035	0.108	0.084	0.003	0.016	0.0002	0.00001	0.0095	0.06	0.54

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748003.20	4307987.20	171.6	1-HR	4TH	77.9	76.0	0.01	17.26	0.008	0.004	0.001	0.004	0.002	0.012	0.0003	0.00001	0.0120	0.04	0.37
748053.60	4308109.70	171.6	1-HR	4TH	77.0	75.1	0.07	18.57	0.008	0.005	0.002	0.003	0.004	0.023	0.0003	0.00002	0.0107	0.10	0.73
748900.30	4306546.80	171.6	1-HR	4TH	76.7	74.8	0.27	18.29	0.255	0.221	0.011	0.006	0.008	0.037	0.0002	0.00003	0.0065	0.09	0.89
747900.00	4308100.00	171.5	1-HR	4TH	77.5	75.7	0.04	17.68	0.004	0.004	0.001	0.003	0.003	0.016	0.0003	0.00001	0.0114	0.06	0.55
748875.40	4306568.50	171.4	1-HR	4TH	78.4	76.4	0.00	16.44	0.001	0.001	0.000	0.000	0.001	0.005	0.0001	0.00001	0.0020	0.01	0.16
748000.00	4308000.00	171.4	1-HR	4TH	77.8	75.8	0.01	17.26	0.005	0.004	0.001	0.004	0.002	0.012	0.0003	0.00001	0.0118	0.04	0.37
748600.00	4307600.00	171.4	1-HR	4TH	72.7	70.8	6.34	20.82	0.112	0.092	0.068	0.056	0.002	0.010	0.0004	0.00001	0.0108	0.03	0.30
748602.70	4307146.10	171.3	1-HR	4TH	76.3	74.4	0.11	19.95	0.069	0.050	0.024	0.008	0.002	0.011	0.0001	0.00001	0.0061	0.04	0.38
749000.00	4306500.00	171.3	1-HR	4TH	78.5	76.5	0.00	16.18	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0023	0.01	0.17
748675.20	4306901.10	171.3	1-HR	4TH	76.8	75.0	0.07	18.36	0.081	0.068	0.007	0.002	0.005	0.025	0.0001	0.00002	0.0044	0.08	0.76
748850.50	4306590.20	171.3	1-HR	4TH	78.5	76.5	0.00	16.18	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0026	0.01	0.17
748500.00	4307500.00	171.2	1-HR	4TH	74.7	72.9	1.53	21.46	0.037	0.024	0.121	0.151	0.002	0.010	0.0002	0.00001	0.0098	0.03	0.33
748715.40	4306885.60	171.2	1-HR	4TH	76.8	74.9	0.08	18.36	0.090	0.075	0.007	0.002	0.006	0.025	0.0001	0.00002	0.0044	0.08	0.77
748700.00	4307700.00	171.2	1-HR	4TH	74.4	72.6	5.74	17.70	0.134	0.114	0.044	0.024	0.002	0.012	0.0003	0.00001	0.0113	0.04	0.34
748826.20	4306616.30	171.2	1-HR	4TH	78.4	76.4	0.00	16.18	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0028	0.01	0.17
749124.20	4306344.40	171.1	1-HR	4TH	78.4	76.5	0.00	16.04	0.002	0.002	0.000	0.000	0.002	0.007	0.0001	0.00001	0.0015	0.01	0.20
748097.00	4308102.40	171.1	1-HR	4TH	76.7	74.9	0.06	18.57	0.016	0.008	0.002	0.003	0.004	0.023	0.0003	0.00002	0.0107	0.10	0.72
748100.00	4308100.00	171.1	1-HR	4TH	76.7	74.9	0.06	18.57	0.018	0.008	0.002	0.003	0.004	0.023	0.0003	0.00002	0.0107	0.10	0.72
748051.00	4307977.90	171.1	1-HR	4TH	77.7	75.7	0.01	17.26	0.014	0.009	0.001	0.004	0.002	0.012	0.0003	0.00001	0.0119	0.04	0.37
748000.00	4308100.00	171.1	1-HR	4TH	77.6	76.0	0.04	16.81	0.004	0.004	0.001	0.003	0.002	0.014	0.0002	0.00001	0.0135	0.05	0.48
748801.90	4306642.50	171.0	1-HR	4TH	78.5	76.4	0.00	15.97	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0029	0.01	0.15
748709.90	4306925.90	171.0	1-HR	4TH	77.3	75.4	0.05	17.66	0.054	0.043	0.008	0.002	0.003	0.015	0.0002	0.00001	0.0074	0.04	0.46
748800.00	4307000.00	171.0	1-HR	4TH	76.9	75.1	0.10	18.15	0.098	0.078	0.018	0.006	0.003	0.016	0.0002	0.00001	0.0078	0.04	0.50
749100.00	4306400.00	171.0	1-HR	4TH	77.2	75.4	0.01	18.06	0.004	0.004	0.000	0.000	0.002	0.008	0.0001	0.00001	0.0013	0.02	0.23
748656.70	4306878.00	171.0	1-HR	4TH	76.0	74.2	0.06	19.63	0.073	0.062	0.006	0.002	0.006	0.028	0.0001	0.00002	0.0037	0.08	0.81
748750.50	4306910.20	171.0	1-HR	4TH	77.2	75.3	0.05	17.66	0.061	0.048	0.008	0.002	0.003	0.015	0.0002	0.00001	0.0074	0.04	0.46
748646.40	4307147.20	170.9	1-HR	4TH	76.0	74.2	0.13	19.95	0.086	0.064	0.027	0.010	0.003	0.011	0.0001	0.00001	0.0063	0.04	0.38
748755.60	4306870.00	170.9	1-HR	4TH	76.6	74.8	0.08	18.36	0.099	0.082	0.007	0.002	0.006	0.025	0.0001	0.00002	0.0044	0.08	0.77
748500.00	4307300.00	170.8	1-HR	4TH	75.6	73.7	0.22	20.50	0.069	0.047	0.070	0.032	0.003	0.014	0.0002	0.00001	0.0087	0.05	0.46
748500.00	4307400.00	170.8	1-HR	4TH	74.6	72.8	0.57	21.76	0.111	0.076	0.105	0.096	0.003	0.016	0.0002	0.00001	0.0095	0.06	0.55
748532.80	4307794.00	170.8	1-HR	4TH	74.8	73.0	3.97	18.13	0.109	0.090	0.030	0.019	0.003	0.015	0.0002	0.00001	0.0121	0.05	0.47
748600.00	4307200.00	170.7	1-HR	4TH	75.5	73.6	0.17	20.77	0.084	0.061	0.045	0.018	0.003	0.012	0.0002	0.00001	0.0079	0.04	0.42
748640.10	4306853.10	170.7	1-HR	4TH	76.9	75.1	0.03	17.89	0.034	0.032	0.003	0.001	0.004	0.021	0.0001	0.00002	0.0038	0.06	0.58
748900.00	4306600.00	170.7	1-HR	4TH	78.1	76.2	0.00	16.23	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0028	0.01	0.16
748782.00	4307024.50	170.7	1-HR	4TH	75.8	73.9	0.11	20.26	0.099	0.078	0.022	0.007	0.003	0.014	0.0003	0.00001	0.0088	0.04	0.44
748640.10	4306828.20	170.7	1-HR	4TH	76.9	75.1	0.03	17.89	0.033	0.032	0.002	0.001	0.004	0.021	0.0001	0.00002	0.0035	0.06	0.58
748777.60	4306668.60	170.6	1-HR	4TH	78.3	76.2	0.00	15.97	0.000	0.000	0.000	0.000	0.001	0.006	0.0001	0.00001	0.0031	0.01	0.15
748140.40	4308095.10	170.5	1-HR	4TH	77.5	75.7	0.03	16.72	0.022	0.012	0.001	0.002	0.002	0.012	0.0002	0.00001	0.0086	0.04	0.41
748791.10	4306894.40	170.5	1-HR	4TH	77.0	75.1	0.06	17.66	0.068	0.054	0.009	0.002	0.003	0.015	0.0002	0.00001	0.0073	0.04	0.47
748759.90	4306998.10	170.5	1-HR	4TH	76.7	74.9	0.08	18.15	0.083	0.065	0.015	0.005	0.003	0.016	0.0002	0.00001	0.0076	0.04	0.50
748098.80	4307968.60	170.5	1-HR	4TH	77.4	75.4	0.02	17.26	0.021	0.017	0.001	0.003	0.002	0.012	0.0003	0.00001	0.0118	0.04	0.37
748690.00	4307148.30	170.5	1-HR	4TH	75.4	73.5	0.17	20.77	0.107	0.082	0.037	0.015	0.003	0.012	0.0002	0.00001	0.0076	0.04	0.42
748723.90	4306950.00	170.4	1-HR	4TH	76.7	74.9	0.06	18.15	0.061	0.048	0.009	0.003	0.003	0.016	0.0002	0.00001	0.0067	0.04	0.50
748662.20	4306791.30	170.4	1-HR	4TH	77.6	75.7	0.03	16.35	0.033	0.032	0.002	0.001	0.004	0.019	0.0001	0.00002	0.0041	0.05	0.54
748795.80	4306854.40	170.4	1-HR	4TH	76.3	74.5	0.08	18.36	0.108	0.089	0.008	0.002	0.006	0.025	0.0001	0.00002	0.0043	0.08	0.78
748737.90	4306971.80	170.4	1-HR	4TH	76.6	74.8	0.07	18.15	0.070	0.054	0.012	0.004	0.003	0.016	0.0002	0.00001	0.0071	0.04	0.49
748831.70	4306878.60	170.4	1-HR	4TH	76.9	75.1	0.06	17.66	0.076	0.061	0.009	0.003	0.003	0.015	0.0002	0.00001	0.0073	0.04	0.47
748600.00	4307500.00	170.4	1-HR	4TH	74.1	72.3	2.73	20.52	0.044	0.032	0.105	0.132	0.002	0.011	0.0003	0.00001	0.0110	0.03	0.35
748800.00	4306900.00	170.4	1-HR	4TH	76.9	75.0	0.06	17.66	0.072	0.057	0.009	0.003	0.003	0.015	0.0002	0.00001	0.0075	0.04	0.47
748746.60	4306703.40	170.3	1-HR	4TH	77.4	75.5	0.01	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.00001	0.0028	0.01	0.20
748900.00	4307000.00	170.3	1-HR	4TH	75.5	73.6	0.14	20.26	0.138	0.115	0.026	0.010	0.003	0.014	0.0003	0.00001	0.0090	0.04	0.44

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748700.00	4306800.00	170.2	1-HR	4TH	76.7	74.9	0.03	17.89	0.035	0.033	0.002	0.001	0.004	0.021	0.0001	0.00002	0.0034	0.06	0.59
749123.70	4306413.50	170.1	1-HR	4TH	77.7	75.8	0.00	16.47	0.002	0.002	0.000	0.000	0.002	0.007	0.0001	0.00001	0.0017	0.01	0.19
748836.00	4306838.90	170.1	1-HR	4TH	75.5	73.7	0.09	19.63	0.118	0.098	0.007	0.002	0.006	0.028	0.0001	0.00002	0.0039	0.09	0.83
748731.40	4306735.00	170.1	1-HR	4TH	77.3	75.4	0.01	17.19	0.000	0.000	0.001	0.000	0.001	0.007	0.0001	0.00001	0.0031	0.01	0.20
748804.00	4307050.80	170.1	1-HR	4TH	75.4	73.5	0.13	20.26	0.117	0.094	0.029	0.010	0.003	0.014	0.0003	0.00001	0.0093	0.04	0.44
748696.50	4306769.80	170.1	1-HR	4TH	78.5	76.5	0.00	14.85	0.000	0.000	0.001	0.000	0.001	0.007	0.0002	0.00001	0.0053	0.01	0.21
748146.60	4307959.30	170.0	1-HR	4TH	77.1	75.1	0.05	17.26	0.027	0.024	0.001	0.003	0.002	0.012	0.0003	0.00001	0.0117	0.04	0.37
748872.30	4306862.80	170.0	1-HR	4TH	76.7	74.9	0.07	17.66	0.083	0.068	0.009	0.003	0.003	0.015	0.0002	0.00001	0.0073	0.04	0.47
748733.70	4307149.40	170.0	1-HR	4TH	75.1	73.2	0.21	20.77	0.129	0.101	0.040	0.017	0.003	0.012	0.0002	0.00001	0.0077	0.04	0.42
748700.00	4307500.00	170.0	1-HR	4TH	73.3	71.5	2.86	21.46	0.110	0.082	0.088	0.086	0.002	0.010	0.0002	0.00001	0.0098	0.03	0.34
749000.00	4307000.00	170.0	1-HR	4TH	75.3	73.4	0.19	20.26	0.181	0.156	0.031	0.013	0.003	0.014	0.0003	0.00001	0.0094	0.04	0.44
748912.90	4306847.10	169.9	1-HR	4TH	76.0	74.2	0.11	18.36	0.156	0.129	0.010	0.003	0.006	0.025	0.0001	0.00002	0.0047	0.08	0.78
748100.00	4308000.00	169.9	1-HR	4TH	77.0	75.1	0.01	17.26	0.011	0.008	0.001	0.003	0.002	0.012	0.0003	0.00001	0.0112	0.04	0.37
748183.80	4308087.80	169.8	1-HR	4TH	75.8	74.0	0.04	19.41	0.034	0.023	0.001	0.002	0.002	0.013	0.0003	0.00001	0.0082	0.05	0.43
749142.90	4306382.60	169.8	1-HR	4TH	76.7	74.8	0.01	18.06	0.004	0.004	0.000	0.000	0.002	0.008	0.0001	0.00001	0.0013	0.02	0.23
749114.30	4306440.70	169.8	1-HR	4TH	77.7	75.7	0.00	16.18	0.001	0.000	0.000	0.000	0.002	0.006	0.0001	0.00001	0.0022	0.01	0.17
748722.20	4306750.70	169.8	1-HR	4TH	78.3	76.4	0.00	14.85	0.000	0.000	0.001	0.000	0.001	0.007	0.0002	0.00001	0.0051	0.01	0.21
748800.00	4306700.00	169.7	1-HR	4TH	77.1	75.2	0.01	17.19	0.001	0.000	0.001	0.000	0.001	0.007	0.0001	0.00001	0.0030	0.01	0.20
748700.00	4307600.00	169.7	1-HR	4TH	72.7	70.8	6.66	18.78	0.146	0.124	0.052	0.039	0.002	0.009	0.0004	0.00001	0.0095	0.03	0.27
748600.00	4307300.00	169.7	1-HR	4TH	74.2	72.4	0.36	21.76	0.127	0.093	0.069	0.042	0.003	0.017	0.0002	0.00001	0.0086	0.06	0.55
749170.60	4306346.60	169.7	1-HR	4TH	77.7	75.7	0.00	16.04	0.002	0.002	0.000	0.000	0.002	0.008	0.0001	0.00001	0.0017	0.01	0.20
748600.00	4307400.00	169.6	1-HR	4TH	73.8	72.0	0.96	21.76	0.184	0.139	0.096	0.093	0.003	0.016	0.0002	0.00001	0.0094	0.06	0.55
748876.20	4306823.30	169.6	1-HR	4TH	75.2	73.5	0.09	19.63	0.128	0.107	0.007	0.002	0.006	0.028	0.0001	0.00002	0.0039	0.08	0.84
748194.40	4307950.00	169.6	1-HR	4TH	76.8	74.9	0.10	17.26	0.032	0.031	0.001	0.003	0.002	0.012	0.0003	0.00001	0.0115	0.04	0.38
748900.00	4306900.00	169.6	1-HR	4TH	76.2	74.4	0.08	18.15	0.101	0.083	0.012	0.004	0.003	0.016	0.0002	0.00001	0.0068	0.04	0.51
748952.50	4306830.50	169.5	1-HR	4TH	75.8	74.0	0.12	18.36	0.167	0.140	0.010	0.003	0.006	0.026	0.0001	0.00002	0.0047	0.08	0.79
748778.30	4307145.90	169.5	1-HR	4TH	74.8	72.9	0.24	20.77	0.151	0.120	0.041	0.019	0.003	0.012	0.0002	0.00001	0.0077	0.04	0.42
748700.00	4307200.00	169.5	1-HR	4TH	74.8	72.9	0.26	20.77	0.134	0.104	0.051	0.024	0.003	0.012	0.0002	0.00001	0.0081	0.04	0.42
748800.00	4306800.00	169.5	1-HR	4TH	75.2	73.4	0.07	19.63	0.095	0.080	0.005	0.002	0.006	0.028	0.0001	0.00002	0.0034	0.08	0.83
748600.00	4307800.00	169.4	1-HR	4TH	74.5	72.8	3.17	18.13	0.137	0.113	0.028	0.016	0.003	0.015	0.0002	0.00001	0.0119	0.06	0.47
748227.00	4308080.50	169.4	1-HR	4TH	76.9	75.2	0.04	16.72	0.046	0.035	0.001	0.001	0.002	0.012	0.0002	0.00001	0.0085	0.04	0.41
748800.00	4307500.00	169.2	1-HR	4TH	72.7	70.9	3.27	21.46	0.168	0.133	0.075	0.067	0.002	0.010	0.0002	0.00001	0.0097	0.03	0.34
748800.00	4307700.00	169.2	1-HR	4TH	73.6	71.8	4.65	18.13	0.220	0.189	0.045	0.028	0.003	0.015	0.0002	0.00001	0.0115	0.05	0.48
748992.10	4306813.90	169.2	1-HR	4TH	75.6	73.8	0.12	18.36	0.179	0.151	0.010	0.003	0.006	0.026	0.0001	0.00002	0.0046	0.08	0.79
749000.00	4306900.00	169.2	1-HR	4TH	75.9	74.2	0.11	18.15	0.136	0.115	0.015	0.006	0.004	0.016	0.0002	0.00001	0.0073	0.04	0.51
748828.10	4307091.50	169.2	1-HR	4TH	75.1	73.2	0.18	19.95	0.145	0.118	0.027	0.011	0.003	0.011	0.0001	0.00001	0.0061	0.04	0.39
748911.80	4306808.00	169.2	1-HR	4TH	75.0	73.2	0.10	19.63	0.137	0.114	0.007	0.002	0.007	0.028	0.0001	0.00002	0.0039	0.08	0.84
748900.00	4307100.00	169.2	1-HR	4TH	74.5	72.7	0.29	20.77	0.195	0.163	0.037	0.018	0.003	0.012	0.0002	0.00001	0.0075	0.04	0.43
749000.00	4306600.00	169.1	1-HR	4TH	77.5	75.4	0.00	15.97	0.000	0.000	0.001	0.000	0.001	0.006	0.0002	0.00001	0.0035	0.01	0.15
748242.30	4307940.70	169.1	1-HR	4TH	76.5	74.6	0.17	17.26	0.035	0.035	0.001	0.002	0.002	0.013	0.0003	0.00001	0.0114	0.04	0.38
748530.90	4307839.50	169.1	1-HR	4TH	75.5	73.6	2.08	17.26	0.081	0.069	0.013	0.004	0.003	0.013	0.0003	0.00001	0.0114	0.04	0.39
748270.20	4308073.20	169.0	1-HR	4TH	76.7	75.0	0.06	16.72	0.059	0.047	0.001	0.001	0.002	0.012	0.0002	0.00001	0.0084	0.04	0.41
749037.90	4306794.00	169.0	1-HR	4TH	75.5	73.7	0.13	18.36	0.193	0.164	0.010	0.003	0.007	0.026	0.0001	0.00002	0.0046	0.08	0.80
749100.00	4306800.00	169.0	1-HR	4TH	75.5	73.7	0.15	18.36	0.231	0.198	0.011	0.004	0.007	0.026	0.0001	0.00002	0.0049	0.08	0.80
748900.00	4306800.00	169.0	1-HR	4TH	74.9	73.2	0.09	19.63	0.129	0.108	0.007	0.002	0.006	0.028	0.0001	0.00002	0.0037	0.08	0.84
748816.80	4307148.00	169.0	1-HR	4TH	74.5	72.6	0.29	20.77	0.174	0.141	0.043	0.021	0.003	0.012	0.0002	0.00001	0.0078	0.04	0.42
748836.60	4307114.70	169.0	1-HR	4TH	74.5	72.6	0.25	20.77	0.165	0.135	0.037	0.017	0.003	0.012	0.0002	0.00001	0.0075	0.04	0.42
749100.00	4306500.00	168.9	1-HR	4TH	77.3	75.3	0.00	16.18	0.001	0.000	0.001	0.000	0.002	0.006	0.0001	0.00001	0.0028	0.01	0.17
748800.00	4307600.00	168.9	1-HR	4TH	73.4	71.7	4.91	18.29	0.105	0.089	0.072	0.068	0.001	0.007	0.0002	0.00001	0.0094	0.02	0.22
749114.80	4306469.80	168.9	1-HR	4TH	77.2	75.3	0.00	16.18	0.001	0.000	0.001	0.000	0.002	0.006	0.0001	0.00001	0.0025	0.01	0.17
748947.50	4306792.80	168.9	1-HR	4TH	74.8	73.1	0.10	19.63	0.146	0.123	0.007	0.002	0.007	0.028	0.0001	0.00002	0.0038	0.08	0.84

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
748313.40	4308066.00	168.8	1-HR	4TH	76.3	74.5	0.08	17.29	0.072	0.060	0.002	0.001	0.002	0.014	0.0003	0.00001	0.0100	0.05	0.47
749083.70	4306774.00	168.8	1-HR	4TH	74.7	73.0	0.13	19.63	0.204	0.175	0.009	0.003	0.007	0.028	0.0001	0.00002	0.0042	0.08	0.86
748700.00	4307300.00	168.8	1-HR	4TH	73.6	71.8	0.56	21.76	0.196	0.155	0.071	0.050	0.004	0.017	0.0002	0.00001	0.0087	0.06	0.56
748290.10	4307931.40	168.7	1-HR	4TH	76.3	74.4	0.25	17.26	0.039	0.039	0.002	0.002	0.002	0.013	0.0003	0.00001	0.0114	0.04	0.38
748800.00	4307200.00	168.7	1-HR	4TH	74.3	72.5	0.38	20.50	0.195	0.159	0.052	0.027	0.003	0.014	0.0002	0.00001	0.0082	0.05	0.47
748900.00	4307500.00	168.7	1-HR	4TH	71.2	69.4	5.05	22.04	0.246	0.204	0.058	0.047	0.003	0.012	0.0003	0.00001	0.0102	0.04	0.37
748700.00	4307400.00	168.7	1-HR	4TH	73.3	71.5	1.45	21.76	0.056	0.039	0.093	0.091	0.002	0.009	0.0002	0.00001	0.0088	0.03	0.31
748200.00	4308000.00	168.6	1-HR	4TH	75.7	73.9	0.12	18.13	0.095	0.084	0.002	0.002	0.003	0.015	0.0003	0.00001	0.0120	0.06	0.49
748900.00	4306700.00	168.6	1-HR	4TH	77.7	75.7	0.00	14.85	0.001	0.000	0.002	0.000	0.002	0.007	0.0002	0.00001	0.0055	0.01	0.21
748356.60	4308058.70	168.5	1-HR	4TH	76.1	74.3	0.11	17.29	0.084	0.073	0.002	0.001	0.003	0.014	0.0003	0.00001	0.0099	0.05	0.47
749100.00	4306900.00	168.5	1-HR	4TH	75.5	73.7	0.15	18.15	0.173	0.151	0.019	0.008	0.004	0.016	0.0002	0.00001	0.0076	0.04	0.51
748337.90	4307922.20	168.4	1-HR	4TH	76.1	74.1	0.38	17.26	0.042	0.042	0.003	0.002	0.002	0.013	0.0003	0.00001	0.0113	0.04	0.38
748700.00	4307800.00	168.4	1-HR	4TH	74.8	72.9	2.70	17.26	0.156	0.132	0.019	0.008	0.003	0.013	0.0003	0.00001	0.0112	0.05	0.39
748983.10	4306777.50	168.4	1-HR	4TH	74.5	72.8	0.10	19.63	0.155	0.131	0.007	0.002	0.007	0.029	0.0001	0.00002	0.0038	0.08	0.85
748900.00	4307600.00	168.4	1-HR	4TH	73.1	71.4	4.86	18.29	0.137	0.119	0.059	0.051	0.001	0.007	0.0002	0.00001	0.0093	0.02	0.22
749088.30	4306729.30	168.3	1-HR	4TH	74.5	72.8	0.11	19.63	0.182	0.155	0.007	0.002	0.007	0.028	0.0001	0.00002	0.0037	0.08	0.85
749115.30	4306498.80	168.3	1-HR	4TH	76.9	75.0	0.00	16.18	0.001	0.000	0.001	0.000	0.002	0.006	0.0001	0.00001	0.0028	0.01	0.17
748855.30	4307150.00	168.3	1-HR	4TH	74.1	72.2	0.34	20.77	0.197	0.163	0.044	0.023	0.003	0.012	0.0002	0.00001	0.0078	0.04	0.42
748800.00	4307400.00	168.2	1-HR	4TH	74.1	72.3	1.73	19.42	0.098	0.072	0.084	0.071	0.002	0.01	0.0002	0.00001	0.0087	0.03	0.31
748399.80	4308051.50	168.1	1-HR	4TH	75.9	74.1	0.15	17.29	0.100	0.085	0.002	0.001	0.003	0.014	0.0003	0.00001	0.0099	0.05	0.48
748800.00	4307300.00	168.1	1-HR	4TH	73.0	71.2	0.83	21.76	0.276	0.228	0.068	0.053	0.004	0.017	0.0002	0.00001	0.0088	0.06	0.56
748900.00	4307700.00	168.1	1-HR	4TH	73.2	71.5	4.12	18.13	0.275	0.244	0.040	0.025	0.004	0.015	0.0002	0.00001	0.0113	0.06	0.48
749022.90	4306759.50	168.0	1-HR	4TH	74.3	72.6	0.11	19.63	0.165	0.140	0.007	0.002	0.007	0.029	0.0001	0.00003	0.0038	0.08	0.85
748385.70	4307912.90	168.0	1-HR	4TH	75.8	73.8	0.53	17.26	0.045	0.044	0.004	0.002	0.002	0.013	0.0003	0.00001	0.0112	0.04	0.38
749062.70	4306741.50	168.0	1-HR	4TH	74.3	72.6	0.11	19.63	0.176	0.150	0.007	0.002	0.007	0.028	0.0001	0.00003	0.0037	0.08	0.86
749129.50	4306754.10	167.9	1-HR	4TH	74.2	72.5	0.13	19.63	0.216	0.187	0.009	0.003	0.007	0.029	0.0001	0.00003	0.0041	0.08	0.86
748900.00	4307200.00	167.9	1-HR	4TH	73.8	71.9	0.55	20.50	0.265	0.224	0.052	0.032	0.003	0.014	0.0002	0.00001	0.0083	0.05	0.48
749000.00	4307100.00	167.9	1-HR	4TH	73.8	71.9	0.40	20.77	0.256	0.219	0.039	0.021	0.003	0.012	0.0002	0.00001	0.0077	0.04	0.43
749122.60	4306533.00	167.9	1-HR	4TH	74.6	72.7	0.38	18.34	0.376	0.342	0.013	0.008	0.009	0.039	0.0002	0.00003	0.0070	0.09	0.90
749100.00	4307000.00	167.8	1-HR	4TH	74.1	72.2	0.26	20.26	0.225	0.199	0.035	0.018	0.004	0.014	0.0003	0.00001	0.0095	0.04	0.45
748300.00	4308000.00	167.8	1-HR	4TH	75.3	73.4	0.19	18.13	0.112	0.102	0.002	0.002	0.003	0.015	0.0003	0.00001	0.0116	0.06	0.49
748443.00	4308044.20	167.7	1-HR	4TH	75.6	73.8	0.18	17.29	0.123	0.101	0.003	0.001	0.003	0.014	0.0003	0.00001	0.0098	0.05	0.48
749000.00	4307600.00	167.6	1-HR	4TH	71.9	70.3	4.94	19.53	0.250	0.217	0.062	0.048	0.002	0.011	0.0002	0.00001	0.0109	0.03	0.30
748433.50	4307903.60	167.6	1-HR	4TH	75.5	73.6	0.70	17.26	0.050	0.047	0.005	0.002	0.002	0.013	0.0003	0.00001	0.0111	0.04	0.38
748900.00	4307400.00	167.5	1-HR	4TH	72.5	70.7	2.05	21.46	0.160	0.124	0.072	0.060	0.002	0.011	0.0002	0.00001	0.0090	0.03	0.34
749000.00	4307400.00	167.5	1-HR	4TH	72.9	71.2	1.81	20.61	0.184	0.147	0.076	0.057	0.003	0.013	0.0002	0.00001	0.0098	0.04	0.41
748486.20	4308036.90	167.4	1-HR	4TH	75.4	73.6	0.22	17.29	0.152	0.122	0.003	0.001	0.003	0.014	0.0003	0.00001	0.0097	0.05	0.48
748481.30	4307894.30	167.4	1-HR	4TH	75.3	73.4	0.88	17.26	0.058	0.052	0.006	0.002	0.002	0.013	0.0003	0.00001	0.0110	0.05	0.38
748900.00	4307300.00	167.4	1-HR	4TH	72.4	70.6	1.15	21.76	0.361	0.311	0.064	0.051	0.004	0.017	0.0002	0.00001	0.0088	0.06	0.57
749200.00	4306900.00	167.3	1-HR	4TH	74.8	73.1	0.20	18.15	0.212	0.189	0.022	0.011	0.004	0.017	0.0002	0.00001	0.0079	0.04	0.51
749000.00	4306700.00	167.3	1-HR	4TH	76.0	74.1	0.04	16.35	0.056	0.048	0.004	0.001	0.005	0.020	0.0001	0.00002	0.0047	0.05	0.56
748529.40	4308029.70	167.2	1-HR	4TH	75.3	73.5	0.26	17.29	0.189	0.149	0.004	0.002	0.003	0.014	0.0003	0.00001	0.0096	0.05	0.48
748400.00	4308000.00	167.2	1-HR	4TH	75.3	73.6	0.27	17.26	0.127	0.118	0.003	0.001	0.003	0.013	0.0003	0.00001	0.0133	0.05	0.41
749000.00	4307500.00	167.2	1-HR	4TH	71.2	69.4	4.82	20.82	0.276	0.237	0.051	0.038	0.002	0.010	0.0003	0.00001	0.0100	0.03	0.30
748529.10	4307885.00	167.2	1-HR	4TH	75.1	73.2	1.06	17.26	0.068	0.060	0.007	0.002	0.003	0.013	0.0003	0.00001	0.0110	0.05	0.38
749000.00	4307200.00	167.1	1-HR	4TH	73.2	71.4	0.76	20.50	0.341	0.296	0.052	0.034	0.003	0.014	0.0002	0.00001	0.0084	0.05	0.48
749100.00	4307400.00	167.1	1-HR	4TH	72.0	70.2	3.44	20.52	0.260	0.216	0.060	0.050	0.003	0.011	0.0003	0.00001	0.0100	0.03	0.36
749200.00	4307000.00	167.1	1-HR	4TH	73.1	71.2	0.43	21.08	0.305	0.269	0.042	0.025	0.004	0.015	0.0004	0.00001	0.0107	0.04	0.49
749000.00	4307300.00	167.1	1-HR	4TH	72.5	70.6	1.49	21.76	0.148	0.115	0.062	0.050	0.002	0.010	0.0002	0.00001	0.0082	0.03	0.31
748500.00	4307900.00	167.0	1-HR	4TH	74.2	72.4	1.18	18.13	0.208	0.189	0.010	0.004	0.003	0.016	0.0003	0.00001	0.0120	0.06	0.50
748575.30	4308024.60	166.9	1-HR	4TH	75.1	73.3	0.29	17.29	0.233	0.184	0.005	0.002	0.003	0.014	0.0003	0.00001	0.0095	0.05	0.48

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
749175.30	4306734.20	166.9	1-HR	4TH	73.7	72.0	0.14	19.63	0.227	0.197	0.009	0.003	0.008	0.029	0.0001	0.00003	0.0040	0.08	0.86
748500.00	4308000.00	166.9	1-HR	4TH	75.1	73.4	0.34	17.26	0.153	0.137	0.003	0.001	0.003	0.013	0.0003	0.00001	0.0129	0.05	0.41
748800.00	4307800.00	166.9	1-HR	4TH	74.1	72.2	2.43	17.26	0.202	0.175	0.018	0.007	0.003	0.013	0.0003	0.00001	0.0109	0.05	0.39
748600.00	4308000.00	166.9	1-HR	4TH	74.9	73.2	0.38	17.29	0.281	0.225	0.006	0.003	0.003	0.014	0.0003	0.00001	0.0096	0.05	0.49
749000.00	4307700.00	166.8	1-HR	4TH	72.8	71.0	3.60	18.13	0.330	0.298	0.036	0.022	0.004	0.015	0.0002	0.00001	0.0111	0.06	0.48
749113.80	4306717.00	166.7	1-HR	4TH	73.7	72.0	0.11	19.63	0.186	0.160	0.007	0.002	0.007	0.029	0.0001	0.00003	0.0036	0.08	0.86
749100.00	4306700.00	166.7	1-HR	4TH	73.7	72.0	0.10	19.63	0.172	0.147	0.007	0.002	0.007	0.029	0.0001	0.00003	0.0034	0.08	0.86
748621.10	4308019.50	166.6	1-HR	4TH	74.8	73.1	0.32	17.29	0.283	0.227	0.005	0.002	0.003	0.014	0.0003	0.00001	0.0095	0.05	0.48
749200.00	4306800.00	166.6	1-HR	4TH	74.9	73.0	0.13	17.66	0.166	0.146	0.015	0.006	0.004	0.015	0.0002	0.00001	0.0079	0.04	0.48
749100.00	4306600.00	166.6	1-HR	4TH	75.5	73.7	0.01	17.19	0.001	0.001	0.002	0.000	0.002	0.007	0.0001	0.00001	0.0032	0.01	0.20
749100.00	4307600.00	166.5	1-HR	4TH	72.7	70.8	4.25	17.70	0.327	0.294	0.042	0.027	0.003	0.012	0.0002	0.00001	0.0105	0.04	0.35
749100.00	4307100.00	166.5	1-HR	4TH	72.9	71.1	0.54	20.77	0.323	0.282	0.040	0.024	0.003	0.013	0.0002	0.00001	0.0077	0.04	0.43
748700.00	4308000.00	166.4	1-HR	4TH	74.6	72.8	0.41	17.29	0.390	0.325	0.006	0.003	0.003	0.014	0.0003	0.00001	0.0093	0.05	0.49
748667.00	4308014.40	166.4	1-HR	4TH	74.7	72.9	0.36	17.29	0.338	0.276	0.006	0.002	0.003	0.014	0.0003	0.00001	0.0093	0.05	0.49
749100.00	4307200.00	166.3	1-HR	4TH	71.9	70.1	0.95	21.76	0.439	0.389	0.049	0.034	0.004	0.017	0.0002	0.00002	0.0082	0.06	0.58
749287.30	4306879.20	166.3	1-HR	4TH	74.3	72.5	0.22	18.15	0.235	0.212	0.022	0.012	0.004	0.017	0.0002	0.00001	0.0079	0.04	0.51
748712.80	4308009.30	166.2	1-HR	4TH	74.6	72.7	0.33	17.73	0.216	0.195	0.004	0.001	0.002	0.011	0.0003	0.00001	0.0076	0.05	0.39
749200.00	4307100.00	166.2	1-HR	4TH	72.7	70.9	0.67	20.50	0.398	0.354	0.040	0.025	0.004	0.014	0.0002	0.00001	0.0078	0.05	0.49
749100.00	4307300.00	166.2	1-HR	4TH	71.8	70.0	1.82	21.76	0.215	0.175	0.056	0.044	0.002	0.010	0.0002	0.00001	0.0081	0.03	0.31
748600.00	4307900.00	166.1	1-HR	4TH	73.8	72.0	1.18	18.13	0.255	0.227	0.010	0.004	0.003	0.016	0.0003	0.00001	0.0117	0.06	0.50
749199.50	4306722.00	166.1	1-HR	4TH	73.3	71.6	0.14	19.63	0.231	0.201	0.009	0.003	0.008	0.029	0.0001	0.00003	0.0040	0.08	0.86
749243.50	4306751.80	166.1	1-HR	4TH	73.9	72.2	0.17	18.36	0.278	0.244	0.012	0.004	0.007	0.027	0.0001	0.00002	0.0048	0.08	0.81
749138.30	4306573.60	166.0	1-HR	4TH	73.8	71.9	0.41	18.08	0.407	0.373	0.014	0.009	0.009	0.039	0.0002	0.00003	0.0077	0.09	0.88
748753.50	4308004.00	166.0	1-HR	4TH	74.0	72.3	0.61	17.78	0.361	0.319	0.007	0.002	0.004	0.017	0.0003	0.00002	0.0118	0.07	0.53
749153.70	4306698.90	165.9	1-HR	4TH	73.3	71.6	0.11	19.63	0.194	0.168	0.007	0.002	0.007	0.029	0.0001	0.00003	0.0036	0.08	0.86
749292.10	4306911.00	165.9	1-HR	4TH	73.1	71.2	0.27	20.26	0.255	0.231	0.028	0.016	0.004	0.015	0.0003	0.00001	0.0089	0.04	0.45
749275.00	4306838.90	165.8	1-HR	4TH	74.1	72.4	0.18	18.15	0.209	0.187	0.018	0.009	0.004	0.017	0.0002	0.00001	0.0074	0.04	0.51
748794.10	4307998.70	165.7	1-HR	4TH	73.8	72.1	0.65	17.78	0.398	0.355	0.007	0.002	0.004	0.017	0.0003	0.00002	0.0117	0.07	0.53
749223.80	4306709.80	165.7	1-HR	4TH	73.1	71.4	0.14	19.63	0.235	0.206	0.009	0.003	0.008	0.030	0.0001	0.00003	0.0039	0.08	0.86
749200.00	4307400.00	165.7	1-HR	4TH	70.3	68.5	4.60	21.10	0.344	0.297	0.050	0.041	0.003	0.013	0.0004	0.00001	0.0106	0.04	0.39
748800.00	4308000.00	165.7	1-HR	4TH	73.8	72.1	0.64	17.78	0.401	0.358	0.007	0.002	0.004	0.017	0.0003	0.00002	0.0117	0.07	0.53
749253.10	4306775.10	165.7	1-HR	4TH	74.4	72.6	0.13	17.66	0.173	0.153	0.015	0.006	0.004	0.016	0.0002	0.00001	0.0078	0.04	0.48
749150.30	4306605.00	165.6	1-HR	4TH	72.9	71.1	0.44	19.30	0.435	0.400	0.014	0.009	0.010	0.039	0.0002	0.00003	0.0072	0.10	0.93
749262.70	4306798.50	165.5	1-HR	4TH	74.2	72.5	0.15	17.66	0.186	0.166	0.015	0.007	0.004	0.018	0.0002	0.00002	0.0069	0.04	0.54
748834.80	4307993.40	165.5	1-HR	4TH	73.6	71.9	0.68	17.78	0.438	0.393	0.008	0.002	0.004	0.017	0.0003	0.00002	0.0117	0.07	0.53
749296.90	4306942.80	165.5	1-HR	4TH	72.8	71.0	0.33	20.26	0.276	0.251	0.032	0.019	0.004	0.015	0.0003	0.00001	0.0093	0.04	0.45
749200.00	4307200.00	165.4	1-HR	4TH	71.2	69.5	1.17	21.76	0.528	0.475	0.046	0.034	0.005	0.017	0.0002	0.00002	0.0083	0.06	0.58
749100.00	4307700.00	165.3	1-HR	4TH	72.3	70.5	3.01	18.13	0.383	0.352	0.032	0.020	0.004	0.015	0.0002	0.00001	0.0108	0.06	0.49
748881.40	4307989.60	165.2	1-HR	4TH	73.4	71.7	0.71	17.78	0.481	0.434	0.008	0.003	0.004	0.017	0.0003	0.00002	0.0116	0.07	0.53
748700.00	4307900.00	165.2	1-HR	4TH	73.3	71.5	1.15	18.13	0.310	0.278	0.010	0.004	0.003	0.016	0.0003	0.00001	0.0114	0.06	0.50
748900.00	4307800.00	165.2	1-HR	4TH	72.4	70.7	2.35	18.13	0.527	0.483	0.022	0.010	0.004	0.016	0.0003	0.00001	0.0115	0.06	0.51
749100.00	4307500.00	165.1	1-HR	4TH	70.9	68.9	3.91	20.08	0.453	0.407	0.034	0.025	0.003	0.011	0.0004	0.00001	0.0087	0.03	0.33
749193.50	4306680.90	165.1	1-HR	4TH	72.8	71.1	0.12	19.63	0.202	0.176	0.007	0.002	0.008	0.030	0.0001	0.00003	0.0035	0.08	0.86
749301.20	4306986.80	165.1	1-HR	4TH	72.2	70.4	0.46	20.77	0.358	0.318	0.030	0.017	0.004	0.013	0.0002	0.00001	0.0071	0.04	0.44
748928.10	4307985.80	165.0	1-HR	4TH	73.3	71.6	0.74	17.78	0.523	0.477	0.009	0.003	0.004	0.017	0.0003	0.00002	0.0115	0.07	0.54
749200.00	4307300.00	165.0	1-HR	4TH	72.3	70.6	1.72	19.42	0.282	0.240	0.052	0.039	0.003	0.010	0.0002	0.00001	0.0080	0.03	0.32
748974.80	4307982.00	164.8	1-HR	4TH	73.1	71.4	0.76	17.78	0.565	0.519	0.009	0.003	0.004	0.017	0.0003	0.00002	0.0113	0.07	0.54
749300.00	4307000.00	164.8	1-HR	4TH	72.1	70.2	0.50	20.77	0.369	0.328	0.031	0.018	0.004	0.013	0.0002	0.00001	0.0072	0.04	0.44
749170.60	4306640.00	164.8	1-HR	4TH	73.6	71.7	0.48	16.96	0.467	0.433	0.017	0.011	0.010	0.040	0.0003	0.00003	0.0099	0.10	0.94
749300.00	4307300.00	164.7	1-HR	4TH	72.0	70.3	1.84	19.42	0.363	0.319	0.047	0.035	0.003	0.010	0.0002	0.00001	0.0081	0.03	0.32
749200.00	4307600.00	164.6	1-HR	4TH	71.9	70.1	3.69	17.70	0.383	0.350	0.037	0.024	0.003	0.012	0.0002	0.00001	0.0103	0.04	0.35

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
749021.40	4307978.10	164.6	1-HR	4TH	73.0	71.3	0.78	17.78	0.605	0.561	0.009	0.003	0.004	0.017	0.0003	0.00002	0.0113	0.08	0.54
749306.50	4307011.60	164.6	1-HR	4TH	71.9	70.1	0.54	20.77	0.385	0.343	0.032	0.019	0.004	0.013	0.0002	0.00001	0.0073	0.04	0.44
748800.00	4307900.00	164.6	1-HR	4TH	71.7	70.0	1.40	19.91	0.526	0.472	0.017	0.006	0.004	0.018	0.0003	0.00002	0.0125	0.08	0.52
748900.00	4307900.00	164.4	1-HR	4TH	73.3	71.8	1.34	16.68	0.401	0.371	0.010	0.004	0.003	0.012	0.0002	0.00001	0.0106	0.05	0.36
749068.10	4307974.30	164.4	1-HR	4TH	72.8	71.1	0.79	17.78	0.642	0.602	0.010	0.003	0.004	0.017	0.0003	0.00002	0.0112	0.08	0.54
749300.00	4307200.00	164.3	1-HR	4TH	70.5	68.8	1.36	21.76	0.615	0.563	0.044	0.033	0.005	0.017	0.0002	0.00002	0.0082	0.06	0.59
749300.00	4307400.00	164.3	1-HR	4TH	69.5	67.8	3.48	22.04	0.514	0.461	0.043	0.033	0.003	0.012	0.0003	0.00001	0.0095	0.04	0.38
749000.00	4307900.00	164.3	1-HR	4TH	72.7	71.2	1.39	16.81	0.797	0.746	0.015	0.010	0.003	0.015	0.0002	0.00001	0.0111	0.05	0.52
749311.80	4307036.40	164.2	1-HR	4TH	71.6	69.8	0.62	20.77	0.414	0.370	0.034	0.021	0.004	0.013	0.0002	0.00001	0.0074	0.04	0.44
749112.10	4307966.00	164.2	1-HR	4TH	72.6	70.9	0.83	17.78	0.681	0.643	0.010	0.004	0.005	0.017	0.0003	0.00002	0.0111	0.08	0.55
749300.00	4307100.00	164.1	1-HR	4TH	71.5	69.7	0.82	20.50	0.468	0.422	0.039	0.026	0.004	0.015	0.0002	0.00001	0.0078	0.05	0.49
749000.00	4307800.00	164.0	1-HR	4TH	71.1	69.3	1.59	20.24	0.600	0.564	0.017	0.008	0.004	0.015	0.0003	0.00001	0.0095	0.06	0.48
749200.00	4307500.00	163.9	1-HR	4TH	71.1	69.4	2.60	19.60	0.427	0.389	0.046	0.043	0.002	0.009	0.0002	0.00001	0.0084	0.02	0.28
749315.90	4307068.20	163.8	1-HR	4TH	71.5	69.7	0.71	20.50	0.443	0.399	0.036	0.023	0.004	0.015	0.0002	0.00001	0.0076	0.05	0.49
749156.20	4307957.80	163.8	1-HR	4TH	72.4	70.7	0.86	17.78	0.720	0.683	0.011	0.004	0.005	0.017	0.0003	0.00002	0.0111	0.08	0.55
749318.10	4307094.30	163.7	1-HR	4TH	71.3	69.5	0.82	20.50	0.474	0.428	0.038	0.025	0.004	0.015	0.0002	0.00001	0.0078	0.05	0.49
749200.00	4307700.00	163.7	1-HR	4TH	72.2	70.3	2.50	17.26	0.465	0.439	0.024	0.013	0.003	0.013	0.0003	0.00001	0.0105	0.05	0.40
749100.00	4307900.00	163.6	1-HR	4TH	72.1	70.4	1.22	17.78	0.754	0.714	0.015	0.007	0.005	0.018	0.0003	0.00002	0.0116	0.08	0.55
749323.40	4307119.70	163.6	1-HR	4TH	71.2	69.4	0.96	20.50	0.507	0.461	0.040	0.027	0.004	0.015	0.0002	0.00001	0.0079	0.05	0.49
749300.00	4307600.00	163.6	1-HR	4TH	71.3	69.6	3.07	18.13	0.462	0.430	0.038	0.026	0.004	0.016	0.0002	0.00001	0.0105	0.05	0.50
749328.80	4307145.10	163.5	1-HR	4TH	70.3	68.6	1.06	21.76	0.569	0.519	0.040	0.029	0.005	0.018	0.0002	0.00002	0.0079	0.05	0.59
749340.50	4307172.00	163.3	1-HR	4TH	70.1	68.4	1.24	21.76	0.610	0.559	0.041	0.030	0.005	0.018	0.0002	0.00002	0.0081	0.05	0.58
749300.00	4307500.00	163.2	1-HR	4TH	71.3	69.7	3.01	18.29	0.289	0.267	0.043	0.039	0.002	0.007	0.0002	0.00001	0.0087	0.02	0.22
749200.20	4307949.50	163.2	1-HR	4TH	72.0	70.3	0.89	17.78	0.757	0.721	0.011	0.005	0.005	0.018	0.0003	0.00002	0.0110	0.08	0.56
749350.60	4307204.70	163.1	1-HR	4TH	70.3	68.6	1.44	21.76	0.304	0.262	0.043	0.032	0.003	0.010	0.0002	0.00001	0.0076	0.03	0.32
749387.00	4307324.00	162.9	1-HR	4TH	70.1	68.3	2.71	20.52	0.416	0.369	0.046	0.039	0.003	0.012	0.0003	0.00001	0.0093	0.03	0.37
749400.00	4307600.00	162.9	1-HR	4TH	71.1	69.4	2.74	18.13	0.521	0.491	0.034	0.024	0.005	0.016	0.0002	0.00001	0.0104	0.05	0.50
749200.00	4307900.00	162.9	1-HR	4TH	71.7	70.0	1.15	17.78	0.816	0.780	0.015	0.007	0.005	0.018	0.0003	0.00002	0.0113	0.08	0.56
749360.70	4307237.30	162.9	1-HR	4TH	70.1	68.3	1.69	21.76	0.343	0.300	0.043	0.033	0.003	0.010	0.0002	0.00001	0.0077	0.03	0.32
749373.80	4307280.70	162.8	1-HR	4TH	70.0	68.3	1.71	21.46	0.436	0.383	0.045	0.034	0.003	0.011	0.0002	0.00001	0.0082	0.03	0.35
749242.50	4307939.70	162.7	1-HR	4TH	71.7	70.0	0.93	17.78	0.789	0.756	0.012	0.005	0.005	0.018	0.0003	0.00002	0.0109	0.08	0.56
749100.00	4307800.00	162.7	1-HR	4TH	70.5	68.7	1.39	20.24	0.655	0.623	0.015	0.008	0.004	0.015	0.0003	0.00001	0.0094	0.06	0.48
749284.80	4307930.00	162.6	1-HR	4TH	71.6	69.9	0.96	17.78	0.829	0.798	0.012	0.005	0.005	0.018	0.0003	0.00002	0.0109	0.08	0.56
749400.20	4307367.40	162.5	1-HR	4TH	68.8	67.0	3.10	22.04	0.559	0.507	0.040	0.031	0.003	0.013	0.0003	0.00001	0.0093	0.04	0.38
749327.10	4307920.30	162.3	1-HR	4TH	71.4	69.7	0.99	17.78	0.861	0.832	0.013	0.006	0.005	0.018	0.0003	0.00002	0.0109	0.08	0.56
749300.00	4307900.00	162.3	1-HR	4TH	71.3	69.7	1.10	17.78	0.869	0.838	0.015	0.007	0.005	0.018	0.0003	0.00002	0.0111	0.08	0.56
749300.00	4307700.00	162.2	1-HR	4TH	70.2	68.4	2.47	19.02	0.703	0.670	0.027	0.015	0.006	0.021	0.0003	0.00002	0.0127	0.08	0.57
749400.00	4307500.00	162.0	1-HR	4TH	69.8	68.2	3.12	19.53	0.454	0.423	0.046	0.041	0.003	0.011	0.0002	0.00001	0.0100	0.03	0.31
749200.00	4307800.00	162.0	1-HR	4TH	69.6	68.0	1.86	19.91	0.949	0.903	0.026	0.013	0.005	0.018	0.0003	0.00002	0.0118	0.08	0.54
749361.70	4307911.20	161.8	1-HR	4TH	71.1	69.5	1.02	17.78	0.884	0.856	0.014	0.006	0.005	0.018	0.0003	0.00002	0.0109	0.08	0.56
749396.20	4307902.00	161.5	1-HR	4TH	69.6	68.0	1.10	20.12	0.987	0.962	0.014	0.007	0.006	0.018	0.0003	0.00002	0.0108	0.08	0.57
749400.00	4307900.00	161.5	1-HR	4TH	69.6	68.0	1.10	20.12	0.992	0.966	0.015	0.007	0.006	0.018	0.0003	0.00002	0.0108	0.08	0.57
749451.10	4307515.60	161.4	1-HR	4TH	70.3	68.6	2.75	18.36	0.500	0.471	0.035	0.031	0.003	0.011	0.0002	0.00001	0.0085	0.03	0.31
749400.00	4307400.00	161.3	1-HR	4TH	68.9	67.1	3.16	20.82	0.509	0.462	0.038	0.029	0.003	0.011	0.0003	0.00001	0.0093	0.03	0.31
749430.80	4307892.90	161.3	1-HR	4TH	69.5	67.9	1.12	20.12	1.014	0.990	0.015	0.007	0.006	0.018	0.0003	0.00002	0.0108	0.08	0.57
749438.80	4307484.90	161.3	1-HR	4TH	69.5	67.9	2.95	19.53	0.469	0.439	0.046	0.040	0.003	0.011	0.0002	0.00001	0.0099	0.03	0.31
749300.00	4307800.00	161.2	1-HR	4TH	70.6	69.0	1.80	17.22	1.005	0.964	0.024	0.013	0.005	0.018	0.0002	0.00002	0.0118	0.08	0.52
749400.00	4307700.00	161.2	1-HR	4TH	70.1	68.4	2.12	18.13	0.892	0.868	0.024	0.014	0.005	0.016	0.0002	0.00002	0.0111	0.06	0.53
749465.40	4307544.80	161.2	1-HR	4TH	70.2	68.5	2.68	18.13	0.518	0.487	0.037	0.027	0.005	0.016	0.0002	0.00001	0.0101	0.05	0.50
749413.30	4307410.80	161.1	1-HR	4TH	68.8	67.0	3.14	20.82	0.531	0.485	0.036	0.027	0.003	0.011	0.0003	0.00001	0.0092	0.03	0.31
749468.10	4307879.40	161.1	1-HR	4TH	69.3	67.7	1.17	20.12	1.049	1.026	0.016	0.008	0.006	0.018	0.0003	0.00002	0.0108	0.08	0.57

Alton Township NAA Culpability Spreadsheet
Contributions to the 99th Percentile 1-Hour SO2 Concentrations
Ameren - "Rollback" Rates

X	Y	99th Percentile	AVE	RANK	0001PS	0002PS	0052AS	BACKGRND	0027AS1	0027AS2	0031AS	0099AS	GBC_OL	NM	ATF	CPH	AM_SC_AN	CHM	WRB
749505.30	4307866.00	160.9	1-HR	4TH	69.2	67.6	1.21	20.12	1.081	1.060	0.016	0.008	0.006	0.018	0.0003	0.00002	0.0108	0.08	0.57
749426.50	4307454.20	160.8	1-HR	4TH	69.7	68.0	2.09	19.60	0.549	0.519	0.036	0.034	0.002	0.009	0.0002	0.00001	0.0082	0.02	0.28
749400.00	4307800.00	160.7	1-HR	4TH	69.9	68.3	1.91	17.80	1.071	1.035	0.026	0.013	0.006	0.020	0.0003	0.00002	0.0131	0.08	0.59
749542.60	4307852.50	160.7	1-HR	4TH	69.0	67.4	1.25	20.12	1.111	1.092	0.017	0.009	0.006	0.018	0.0003	0.00002	0.0108	0.08	0.58
749479.80	4307574.00	160.6	1-HR	4TH	69.9	68.3	2.54	18.13	0.530	0.501	0.033	0.024	0.005	0.016	0.0002	0.00001	0.0101	0.05	0.50
749497.60	4307608.70	160.3	1-HR	4TH	69.9	68.3	2.30	18.13	0.549	0.521	0.030	0.021	0.005	0.016	0.0002	0.00001	0.0101	0.05	0.50
749500.00	4307800.00	160.2	1-HR	4TH	70.4	68.8	1.75	17.26	0.722	0.697	0.018	0.010	0.005	0.014	0.0002	0.00001	0.0111	0.06	0.45
749500.00	4307700.00	159.9	1-HR	4TH	68.7	67.0	1.46	20.24	0.932	0.913	0.018	0.011	0.005	0.015	0.0003	0.00001	0.0093	0.06	0.49
749656.40	4307815.00	159.8	1-HR	4TH	68.4	66.8	1.34	20.12	1.185	1.169	0.019	0.010	0.007	0.018	0.0002	0.00002	0.0107	0.08	0.58
749618.50	4307827.50	159.7	1-HR	4TH	68.4	66.8	1.30	20.12	1.151	1.134	0.018	0.010	0.006	0.018	0.0002	0.00002	0.0107	0.08	0.58
749641.00	4307774.70	159.6	1-HR	4TH	70.0	68.5	1.69	17.26	0.801	0.778	0.019	0.011	0.005	0.014	0.0002	0.00001	0.0110	0.06	0.46
749625.70	4307734.40	159.5	1-HR	4TH	69.0	67.4	2.03	17.80	1.233	1.206	0.029	0.017	0.007	0.020	0.0003	0.00002	0.0128	0.08	0.60
749518.60	4307644.60	159.3	1-HR	4TH	68.7	67.0	2.24	19.02	0.841	0.815	0.027	0.017	0.006	0.022	0.0003	0.00002	0.0124	0.08	0.57
749580.50	4307840.00	159.3	1-HR	4TH	68.3	66.7	1.26	20.12	1.109	1.090	0.017	0.009	0.006	0.019	0.0002	0.00002	0.0106	0.07	0.57
749623.60	4307704.30	159.3	1-HR	4TH	69.2	67.7	2.00	17.22	1.222	1.197	0.028	0.018	0.006	0.018	0.0002	0.00002	0.0113	0.08	0.53
749592.20	4307710.50	159.2	1-HR	4TH	69.2	67.7	2.01	17.22	1.200	1.173	0.028	0.017	0.006	0.018	0.0002	0.00002	0.0113	0.07	0.53
749600.00	4307800.00	159.1	1-HR	4TH	69.0	67.4	1.61	17.35	1.506	1.480	0.026	0.018	0.007	0.022	0.0002	0.00002	0.0116	0.08	0.68
749560.70	4307716.60	158.5	1-HR	4TH	67.6	66.1	1.84	19.91	1.173	1.143	0.028	0.017	0.006	0.019	0.0003	0.00002	0.0111	0.08	0.55
749539.70	4307680.60	158.5	1-HR	4TH	68.8	67.1	1.89	18.13	0.929	0.909	0.023	0.014	0.005	0.017	0.0002	0.00001	0.0108	0.06	0.53

Attachment 2

Illinois Environmental Protection Agency

Public Notice
Redesignation Request and Maintenance Plan for the Alton Township Sulfur Dioxide Nonattainment Area for the 2010 Sulfur Dioxide Standard

The Illinois Environmental Protection Agency ("Illinois EPA") Bureau of Air is accepting comments on the draft "Redesignation Request and Maintenance Plan for the Alton Township Sulfur Dioxide Nonattainment Area for the 2010 Sulfur Dioxide Standard." The redesignation request and maintenance plan will be submitted to the United States Environmental Protection Agency ("USEPA") as a State Implementation Plan ("SIP") revision to address Sections 107(d)(3)(E), 110(a)(2), 175A, and 191 of the Federal Clean Air Act ("CAA") and Section 4 of the Illinois Environmental Protection Act (415 ILCS 5/4). The Illinois EPA is also required to submit information pertaining to the SO_2 emissions inventory required under CAA Section 172(c)(3), which is included in the redesignation request and maintenance plan document.

The nonattainment designation for the Alton area was published in the *Federal Register* on July 12, 2016 (81 FR 45039) and became effective on September 12, 2016. The Illinois EPA developed and implemented a modeling analysis for this Nonattainment Area ("NAA") that incorporated reductions in allowable emissions demonstrating attainment with the NAAQS. This attainment demonstration was submitted to USEPA in December 2018. USEPA took final action to approve the attainment demonstration through *Federal Register* publication on February 21, 2023 (88 FR 10464). The permanent and enforceable nature of the allowable emissions reductions achieved since the attainment demonstration, combined with emissions inventories demonstrating decreased allowable and actual emissions between 2017 and 2022, demonstrate that the Alton area should be redesignated to attainment.

The Illinois EPA is accepting written comments and requests for public hearing regarding the proposed redesignation request and maintenance plan. Written comments and requests for hearing must be received by the Illinois EPA by September 4, 2023. Comments, questions, or requests for public hearing should be directed to Brad Frost, Office of Community Relations, Illinois Environmental Protection Agency, 1021 North Grand Ave. East, P.O. Box 19506, Springfield, IL 62794-9506, phone 217/782-7027, TDD phone number 866/273-5488, brad.frost@illinois.gov.

If a timely request for a public hearing is received by Illinois EPA prior to the end of the comment period, a public hearing will be scheduled through a separate notice and held to receive comments regarding the redesignation request and maintenance plan. If a public hearing is conducted, the written public comment period will be extended as provided for in the separate notice. The hearing will be held in accordance with the provisions of the Illinois EPA's "Procedures for Informational and Quasi-Legislative Public Hearings," set forth in 35 Ill. Adm. Code 164. If no request for a public hearing is received by September 4, 2023, no hearing will be scheduled. A verification of whether a hearing will be held will be posted on the Illinois EPA's website within five business days subsequent to the end of the comment period. Those notices will be posted at https://epa.illinois.gov/public-notices/general-notices.html

This notice is intended to satisfy the requirements of Section 110(l) of the CAA regarding public notice for SIP submittals, 42 USC Sec. 7410(l).

Attachment 3

General Public Notices

Notices published prior to January 1, 2016 are available on the archive pages by year. See the Section Navigation Menu at the right.

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Redesignation Request and Maintenance Plan for the Alton Township Sulfur Dioxide Nonattainment Area for the 2010 Sulfur Dioxide Standard

Available Documents

Notice

Redesignation Request and Maintenance Plan

Comment Period Ends

September 04, 2023

Posted

Friday, August 04, 2023

Attachment 4

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 · (217) 782-3397
JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

Verification that No Public Hearing Will Be Held

On August 4, 2023, the Illinois Environmental Protection Agency (Illinois EPA) posted a public notice on the Illinois EPA website at https://epa.illinois.gov/public-notices/general-notices.html announcing the opening of a public comment period associated with the draft *Redesignation Request and Maintenance Plan for the Alton Township Sulfur Dioxide Nonattainment Area for the 2010 Sulfur Dioxide Standard*. This redesignation request and maintenance plan will be submitted to the United States Environmental Protection Agency (USEPA) as a State Implementation Plan (SIP) revision to address Sections 107(d)(3)(E), 110(a)(2), 175A, and 191 of the federal Clean Air Act (CAA).

The nonattainment designation for the Alton area was published in the *Federal Register* on July 12, 2016 (81 FR 45039) and became effective on September 12, 2016. The Illinois EPA submitted an attainment demonstration to the USEPA in December 2018, and the USEPA took final action to approve the attainment demonstration through the *Federal Register* publication on February 21, 2023 (88 FR 10464).

The public comment period in this matter closed on September 4, 2023. The public notice specified that a public hearing would be scheduled if a timely request for a public hearing was received. However, no request for a public hearing was received during the public comment period.

Pursuant to the public notice, the Illinois EPA is required to verify whether a public hearing will or will not be held by positing a public notice on the Illinois EPA website at https://epa.illinois.gov/public-notices/general-notices.html. **Since a request for a public hearing has not been received, a public hearing will not be held in this matter**.

Jeffrey J. Guy, Hearing Officer
Office of Community Relations
Illinois EPA

Date: 9/6/23

4302 N. Main Street, Rockford, IL 61103 (815) 987-7760
595 S. State Street, Elgin, IL 60123 (847) 608-3131
2125 S. First Street, Champaign, IL 61820 (217) 278-5800
2009 Mall Street Collinsville, IL 62234 (618) 346-5120
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200
100 W. Randolph Street, Suite 4-500, Chicago, IL 60601

Attachment 5

General Public Notices

Notices published prior to January 1, 2016 are available on the archive pages by year. See the Section Navigation Menu at the right.

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Draft Illinois Ambient Air Monitoring Network Plan for 2024

Available Documents

Draft Illinois Ambient Air Monitoring Network Plan for 2024
Plan website and contact information

Comment Period Ends
September 06, 2023

Posted
Monday, August 07, 2023

Redesignation Request and Maintenance Plan for the Alton Township Sulfur Dioxide Nonattainment Area for the 2010 Sulfur Dioxide Standard

Available Documents

Notice
Redesignation Request and Maintenance Plan
Verification of No Public Hearing

Comment Period Ends
September 04, 2023

Posted
Friday, August 04, 2023