MEMORANDUM

SUBJECT: Ambient SO_2 Monitoring Network Review and Background (January 2024)

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TO: Secondary NOx/SOx/PM NAAQS Review Docket

This document is intended to provide information on the current Sulfur Dioxide (SO_2) monitoring network in support of the Secondary NOx/SOx/PM National Ambient Air Quality Standards (NAAQS) review's 2024 Notice of Proposed Rulemaking (NPRM). Here, we provide a brief history of the SO_2 monitoring network and review the current status of the network with respect to number of sites, monitoring objective(s), geographic coverage, and other relevant metrics that will allow the EPA to broadly characterize the network in relation to the supporting data needed to assess compliance with the proposed revision to the Secondary SO_2 NAAQS.

Overview

The genesis of the SO_2 network was to support the implementation of the primary SO_2 NAAQS established in 1971. Even though the SO_2 standard was established in 1971, uniform minimum monitoring requirements for SO_2 did not appear in the Code of Federal Regulations (CFR) until May 1979. Between the promulgation of the 1979 initial minimum monitoring requirements until today, the SO_2 network has been regulated by multiple and different sets of minimum monitoring criteria, while the network has decreased in size from approximately 1,496 sites in 1980 to approximately 488 sites operating around the time of the 2010 primary SOx NAAQS review, and down to approximately 434 sites operating in 2023.

Currently, the network design reflects the need to place monitors in areas with emissions proximate to populations, in areas that have relatively higher SO_2 emissions, and to take measurements at locations of expected highest concentrations near sources. The network also has a more modest number of sites serving other purposes including making measurements to assess regional transport and to understand regional background concentrations. In consideration of the information provided and expounded upon in this document, the EPA believes that the network is currently adequate in its ability to provide data appropriate to determine compliance with the proposed Secondary NOx/SOx/PM NAAQS.

Network Historical Review

The 1979 monitoring rule established two categories of SO_2 monitoring sites to help support the implementation of the NAAQS: State and Local Ambient Monitoring Stations (SLAMS) and a smaller set of sites known as National Ambient Monitoring Stations (NAMS). Today, the NAMS term is defunct, subsumed under the SLAMS moniker. No minimum requirements were established for SLAMS in 1979, as the minimum monitoring requirements (described below) were established for NAMS. The 1979 rule also required that SO_2 only be monitored using Federal Reference Methods (FRMs) or Federal Equivalent Methods (FEMs). The 1979 monitoring rule called for a range of monitoring sites in a Metropolitan Statistical Area (MSA) based both on population size and known concentrations relative to the NAAQS (at that point in time). Notably, the 1979 monitoring rule at 40 CFR Part 58, Appendix D, section 3.2 stated:

> Sulfur Dioxide (SO_2) Design Criteria for NAMS. It is desirable to have a greater number of NAMS in the more polluted and densely populated urban and multisource areas. The data in table 3 [shown below in this document as Table 1] show the approximate number of permanent stations needed in urban areas to characterize the national and regional SO_2 air quality trends and geographical patterns. These criteria require that the number of NAMS in areas where urban populations exceed 1,000,000 and concentrations also exceed the primary NAAQS may range from 6 to 10 and that in areas where the SO_2 problem is minor, only one or two (or no) monitors are required. For those cases where more than one station is required for an urban area, there should be at least one station for category (a) and category (b) objectives discussed in section 3. [Category (a) sites are stations located in areas of expected maximum concentrations at the neighborhood scale for SO_2. Category (b) sites are stations which combine poor air quality with a high population density, but not necessarily located in an area of expected maximum concentrations at the neighborhood scale. Category (b) sites are generally representative of larger spatial scales than category (a) sites.] Where three or more stations are required, the mix of category (a) and (b) stations is determined on a case-by-case basis. The actual number and location of the NAMS must be determined by EPA Regional Offices and the State Agency, subject to approval of EPA Headquarters, Office of Air Quality Planning and Standards (OAQPS).

Population Category	High Concentration	Medium Concentration	Low Concentration
>1,000,000	6 – 10	4 – 8	2 – 4
500,000 – 1,000,000	4 – 8	2 – 4	1 – 2
250,000 – 500,000	3 – 4	1 – 2	0 – 1
100,000 – 250,000	1 – 2	0 – 1	0

Table 1. From the 1979 monitoring rule language in 40 CFR Part 58, Appendix D, "Table 3 – SO_2 National Air Monitoring Station Criteria" providing an approximate number of SO_2 stations per area. High concentration is a level exceeding the primary NAAQS, medium concentration is a level exceeding 60% of the level of the primary NAAQS, or 100% of the secondary NAAQS, and low concentration is a level less than 60% of the level of the primary or 100% of the secondary NAAQS.

> [L]ike TSP, the worst air quality in an urban area is to be used as the basis for determining the required number of SO_2 NAMS (see Table 3) [The referenced table is Table 1 in this document]. This includes SO_2 air quality levels within populated parts of urbanized areas, that area affected by one or two point sources of SO_2 if the impact of the source(s) extends over a reasonably broad geographic scale (neighborhood or larger). Maximum SO_2 air quality levels in remote unpopulated areas should be excluded as a basis for selected NAMS regardless of the sources affecting the concentration levels. Such remote areas are more appropriately monitored by SLAMS or SPM [Special Purpose Monitoring (SPM)] networks and/or characterized by diffusion model calculations as necessary."

These minimum monitoring requirements led to the establishment of approximately 1,496 SO_2 monitoring sites in the early 1980's. The network subsequently fulfilled its mission and, as air quality improved over time, the network decayed in size, adapting to air quality conditions and to relieve some operating burden on monitoring agencies.

Progressing through the SO_2 network history timeline, the minimum monitoring promulgated in 1979 remained in 40 CFR Part 58, Appendix D until 2006. The October 2006 monitoring rule (https://www.federalregister.gov/documents/2006/10/17/06-8478/revisions-to-ambient-air-monitoring-regulations) removed the original 1979 minimum requirements from the CFR, replacing them only with a requirement to measure SO_2 at National Core (NCore) multipollutant monitoring sites. Justification for the removal of the original minimum monitoring requirements was "…in light of the rarity of NAAQS violations…" along with relatively low concentrations across much the network. Further, the 2006 rulemaking was promulgated, in part, to allow state and local air monitoring agencies to discontinue lower priority monitoring as part of a paradigm shift towards a multi-pollutant monitoring framework. Specifically, the 2006 monitoring rule revision promulgated at into 40 CFR Part 58, Appendix D, section 4.4, states:

> Sulfur Dioxide (SO_2) Design Criteria.
> (a) There are no minimum requirements for the number of SO_2 monitoring sites. Continued operation of existing SLAMS SO_2 sites using FRM or FEM is required until discontinuation is approved by the EPA Regional Administrator. Where SLAMS SO_2 monitoring is ongoing, at least one of the SLAMS SO_2 sites must be a maximum concentration site for that specific area."
> (b) The appropriate spatial scales for SO_2 SLAMS monitoring are the microscale, middle, and possibly neighborhood scales. The multi-pollutant NCore sites can provide for metropolitan area trends analyses and general control strategy progress tracking. Other SLAMS sites are expected to provide data that are useful in specific compliance actions, for maintenance plan agreements, or for measuring near specific stationary sources of SO_2.
> (1) Micro and middle scale – Some data uses associated with microscale and middle scale measurements for SO_2 include assessing the effects of control strategies to reduce concentrations (especially for the 3-hour and 24-hour averaging times) and monitoring air pollution episodes.

(2) Neighborhood scale – This scale applies where there is a need to collect air quality data as part of an ongoing SO_2 stationary source impact investigation. Typical locations might include suburban areas adjacent to SO_2 stationary sources for example, or for determining background concentrations as part of these studies of population responses to exposure to SO_2.
(c) Technical guidance in reference 1 of this appendix [of CFR] should be used to evaluate the adequacy of each existing SO_2 site, to relocate an existing site, or to locate new sites.

The key impact of the 2006 monitoring rule for SO_2 was the removal of specific minimum monitoring requirements, except for the requirement to measure SO_2 at NCore monitoring stations. That action fed into the continuation of the decades-long trend of declining SO_2 network site numbers. However, having site numbers in the high 400's in the late 2000's, despite substantial requirements, prompted EPA to seek feedback from state and local air agencies on why they had continued to monitor for SO_2 in the absence of specific, minimum monitoring requirements. State and local air agencies responded that they are driven by multiple interests including collecting data to aid in assessing emissions from certain stationary sources, for PSD purposes (as an incentive to draw industry to an area that would require PSD data before establishing a new facility), and some monitoring agencies noted that because there was an SO_2 NAAQS, they felt that they had a responsibility to continue to understand SO_2 emissions and trends in their jurisdictions. This information was important as EPA prepared for what would become the 2010 SO_2 NAAQS revision.

In the 2010 SO2 NAAQS review, the standard was revised, introducing a new 1 hour daily maximum standard of 75ppb intended to address and prevent short-term exposures to peak concentrations of SO_2. Accompanying this revision was the introduction of new minimum monitoring requirements which called for monitoring in Core Based Statistical Areas (CBSAs) where there is an increased coincidence of emissions and population. The rule handled this approach by employing a metric called the Population Weighted Emissions Index (PWEI). The relevant regulatory text for SO_2 monitoring required by the PWEI is as follows from 40 CFR Part 58, Appendix D, Section 4.4: Sulfur Dioxide (SO_2) Design Criteria:

4.4.2 *Requirement for Monitoring by the Population Weighted Emissions Index.*
(a) The population weighted emissions index (PWEI) shall be calculated by States for each core based statistical area (CBSA) they contain or share with another State or States for use in the implementation of or adjustment to the SO_2 monitoring network. The PWEI shall be calculated by multiplying the population of each CBSA, using the most current census data or estimates, and the total amount of SO_2 in tons per year emitted within the CBSA area, using an aggregate of the most recent county level emissions data available in the National Emissions Inventory for each county in each CBSA. The resulting product shall be divided by one million, providing a PWEI value, the units of which are million persons-tons per year. For any CBSA with a calculated PWEI value equal to or greater than 1,000,000, a minimum of three SO_2 monitors are required within that CBSA.

For any CBSA with a calculated PWEI value equal to or greater than 100,000, but less than 1,000,000, a minimum of two SO_2 monitors are required within that CBSA. For any CBSA with a calculated PWEI value equal to or greater than 5,000, but less than 100,000, a minimum of one SO_2 monitor is required within that CBSA.

(1) The SO_2 monitoring site(s) required as a result of the calculated PWEI in each CBSA shall satisfy minimum monitoring requirements if the monitor is sited within the boundaries of the parent CBSA and is one of the following site types (as defined in section 1.1.1 of this appendix): population exposure, highest concentration, source impacts, general background, or regional transport. SO_2 monitors at NCore stations may satisfy minimum monitoring requirements if that monitor is located within a CBSA with minimally required monitors under this part. Any monitor that is sited outside of a CBSA with minimum monitoring requirements to assess the highest concentration resulting from the impact of significant sources or source categories existing within that CBSA shall be allowed to count towards minimum monitoring requirements for that CBSA.

The re-introduction of minimum monitoring requirements in the 2010 rulemaking solidified a significant portion of the existing network (approximately 345 monitors) and called for a handful of monitors to be sited in areas where SO_2 monitoring was previously not conducted.

Following the 2010 SO_2 NAAQS review, the EPA recognized that additional information beyond that provided by the minimally required monitoring network would be necessary to characterize air quality in areas with large sources of SO_2 emissions. EPA addressed this issue through the promulgation of the 2015 Data Requirements Rule (DRR) that specifically took measures to assess and address the lack of information on SO_2 concentrations around sources or source areas emitting 2,000 tons per year or more (https://www.epa.gov/so2-pollution/final-data-requirements-rule-2010-1-hour-sulfur-dioxide-so2-primary-national-ambient). Under the DRR, states had the option to employ monitoring, conduct dispersion modeling, or take a federally enforceable permit limit to comply with the rule. The implementation of the DRR resulted in approximately 78 new installations or repurposed monitoring sites across the country, focused on collecting data at locations of expected maximum concentrations around sources. After deployment, these DRR monitors were required to operate at least three years, the period necessary to collect enough data for a primary NAAQS design value to be calculated. If a monitor measured less than half of the level of the primary NAAQS in its first four years of operation, the DRR allowed for monitors to shut down. Due to that shut-down option, some monitors were allowed to discontinue operation with EPA Regional Administrator approval, creating a modest trend of reduction in network size heading into the 2020's.

Finally, it is important to note that while EPA provides minimum monitoring requirements, it is state, local, and Tribal air agencies, as well as other stakeholders such as industry who operate their respective portions of the network. They also all have the prerogative to operate monitors above the minimums to serve their own needs or to compliment that required by EPA. Such monitors could be SLAMS, or SLAMS-like monitors in some cases, or they can be labeled as Special Purpose Monitoring (SPM). SPMs are typically deployed for short term studies or assessments, but their data are still reported to AQS. In summary, if data are reported to AQS by air agencies or stakeholders, regardless of whether the monitors are required by EPA or operated for other reasons, the data and the manner in which they were collected will be reviewed by EPA and considered for use in comparison to the NAAQS as appropriate.

Current Network Characterization

Currently (circa 2023), there are approximately 434 SO_2 monitors reporting data to AQS nationwide, with at least one SO_2 monitor in every state, as well as the District of Columbia and Puerto Rico. The network is reflective of minimum monitoring requirements to satisfy the PWEI, the requirement to measure SO_2 at all NCore monitoring stations, and monitors initially installed to fulfill the DRR, while additional monitoring is conducted by state, local, and Tribal air agencies on their own prerogative to satisfy additional data needs. There are 380 sites that are operated by state and local air agencies (330 are routine SLAMs and 50 are labeled as SPM), while there are 4 Tribal sites, 4 sites operated by the Federal government, and 46 sites operated by industry. All data used for comparison to the NAAQS are produced by Federal Reference or Federal Equivalent Methods (FRM or FEMs), which are required to adhere to siting, operational, and quality assurance criteria contained in 40 CFR Part 58, to produce data that are suitable for use in comparison to the NAAQS.

To ascertain how the current SO_2 network is characterizing air quality across the country, a review of the SO_2 network meta-data is necessary through inspection of individual monitor site information including monitoring objectives and their spatial scales of representation, as well as reported concentrations. These data, along with other meta-data and air quality pollutant concentration measurements are public, and available from EPA's Air Quality System (AQS), which is a database containing ambient air quality data submitted to the EPA (https://www.epa.gov/aqs). The data shown and reviewed in this document are for monitors believed to be actively reporting data during the years 2022 and 2023. EPA Regions consult with states, local, and Tribal air agencies, as well as federal partners and industry on the accuracy of meta-data values and entries, but it is the responsibility of the stakeholders to classify their own sites. With that, it should be noted that EPA must caveat this review by noting potential uncertainty in the AQS meta-data as it could have missing, outdated, or inaccurate meta-data field entries. A listing of sites reviewed and some of the associated meta-data from AQS used here are available in Appendix A of this document.

Monitoring Objective

The monitoring objective meta-data field in AQS describes what the reported air pollutant concentration data from the monitor (located at a monitoring site) are intended to characterize. The focus of the data presented here is to show the nature of the network. A monitor can have multiple monitor objectives, where some objective types can be complimentary, while others are mutually exclusive by nature. The six primary categories used with SO_2 monitoring efforts stem directly from categorizations of site types within CFR. In 40 CFR Part 58 Appendix D, they are defined as:

1. Sites located to determine the highest concentration expected to occur in the area covered by the network (Highest Concentration).
2. Sites located to measure typical concentrations in areas of high population (Population Exposure).
3. Sites located to determine the impact of significant sources or source categories on air quality (Source Oriented).
4. Sites located to determine general background concentration levels (General Background).
5. Sites located to determine the extent of regional pollutant transport among populated areas; and in support of secondary standards (Regional Transport).
6. Sites located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts (Welfare Related Impacts).

AQS also accepts a few other objective types: upwind background, maximum precursor emissions impact, other, and unknown. In this analysis, upwind background was counted as a “general background” site objective, and maximum precursor emissions impact was counted as a “highest concentration” site objective. The “other” category is often used for sites likely addressing a state or local need outside of the routine objectives, and the “unknown” category represents missing meta-data. Table 2 presents the monitor objective distribution across all SO_2 sites from the available AQS data.

SO_2 Monitoring Objective	Monitoring Objective Counts (not mutually exclusive)	Approximate Percent of Network
Population Exposure	212	48.9 %
Source Oriented	121	27.9 %
Highest Concentration	61	14.1 %
General Background	48	11.1 %
Regional Transport	13	3 %
Welfare Related Impacts	4	1 %
Other	1	0.2 %
Unknown	1	0.2 %

Table 2. SO_2 Network Monitoring Objective Distribution. Table 2 lists all monitor objective records in AQS (which are not mutually exclusive) for the 434 monitors reporting data in 2022 and 2023 and is intended to characterize the SO_2 network in terms of the distribution of those monitors addressing a given monitoring objective.

The distribution of the monitoring objective information indicates that the monitoring network is fulfilling its intended objective of characterizing air quality in areas where emissions and population are proximate, with ~49% of the network having population exposure as one of its possible objectives. The network has a significant sub-component of sites geared to meet the objective of characterizing air quality in areas of high emissions and near sources through the combination of highest concentration (~14%) and source-oriented objectives (~28%). Further, there are a modest number of monitors providing SO_2 concentrations in areas lacking significant SO_2 emissions, represented by general background (~11%), regional transport (~3%) and welfare categories (1%), totaling ~15% of the network. The monitors with background, transport, and welfare related monitoring objectives likely represent large swaths of unmonitored areas of the country that also do not have significant SO_2 emissions in their respective area or region.

Spatial Scales

The spatial scales are defined in 40 CFR Part 58, Appendix D, Section 1 “Monitoring Objectives and Spatial Scales” and describe the what the data from a monitor can represent in terms of air volumes associated with area dimensions:

Microscale:	0 to 100 meters
Middle Scale:	100 to 500 meters
Neighborhood Scale:	500 meters to 4 kilometers
Urban Scale:	4 to 50 kilometers
Regional Scale:	50 kilometers up to 1000km

There are meta-data records for the SO_2 network to indicate what the spatial scale of a particular monitor represents. A monitor can only have one spatial scale, as opposed to the possibility of a single monitor having multiple monitor objectives. Table 3 shows the spatial scale distribution across all SO_2 sites form the available data in AQS of monitors reporting data in 2022 and 2023.

Spatial Scale	**Number of Measurement Scale Records**	**Approximate Percent Distribution**
Microscale	11	2.5 %
Middle Scale	44	10.1 %
Neighborhood	264	60.8 %
Urban Scale	73	16.8 %
Regional Scale	37	8.5 %
Unknown	5	1.1 %

Table 3. SO_2 Network Distribution across Spatial Scales. Table 3 lists all spatial scale records in AQS for SO_2 data reported in 2022 and 2023, and is intended to show what the SO_2 monitors are characterizing in terms of an air volume in a spatial area.

The measurement scale meta-data give an indication of the spatial area in which the measured concentration data may be somewhat homogenous for the area around the monitor. The data in Table 3 indicate that a large portion of the network is focused on the neighborhood and smaller spatial scales (~73% combined). Monitors making measurements in the microscale, middle scale, and in many cases, the neighborhood scale, give an indication that the sites are focused on relatively smaller areas, which is indicative of looking for hot spots and locations of high concentrations in the SO_2 monitoring context.

Measured Concentrations

Since a key network objective is to make measurements in areas of higher SO_2 emissions and in locations of expected maximum SO_2 concentrations around sources, a review of measured concentrations is also useful. Through inspection of publicly available products from EPA including published design values (www.aqs.gov or EPA's Air Trends website [https://www.epa.gov/air-trends/air-quality-design-values]) and other data reports available from AQS and EPA's AirData website (https://aqs.epa.gov/aqsweb/airdata/download_files.html#Annual) that include an annual average value, it appears that there are very few areas of the country with SO_2 concentrations that approach or are higher than the proposed range of the Secondary SO_2 standard (10-15 ppb) when considering an annual average value. Further, those monitors that have the relatively highest readings across the entire network, for both the 1-hour primary standard and levels being considered in the proposed secondary NAAQS review, are in proximity to significant SO_2 sources, as would be expected. This suggests that any concentrations threatening of the level of the primary NAAQS as well as the range of levels proposed for the secondary standard would exclusively be found in proximity to significant SO_2 sources or very high emission areas. Meanwhile, considering data from monitors situated further away from SO_2 emissions areas and significant SO_2 sources, the measured concentrations are often much lower than concentrations seen in source areas. The EPA believes it is reasonable and logical to infer that data from monitors that are not source-oriented or otherwise significantly impacted by proximate anthropogenic sources are routinely measuring relatively low concentrations, and they can be indicative and representative of multiple areas and regions of the country where emissions are modest, and no monitoring is being conducted.

Review Summary

The initial SO_2 monitoring network design (in the 1970s) for the SO_2 NAAQS was driven by a need to characterize SO_2 concentrations to inform potential actions to mitigate health effects from exposures derived from emissions of electrical generation units (EGUs) and the variety of more ubiquitous SO_2 sources (at the time) in urban areas including residential coal and oil furnaces. The NAMS/SLAMS network design was geared to increasingly saturate urban areas with monitors sited at neighborhood and larger scales with increasing relative amounts of known SO_2 concentrations. Through time, monitoring requirements have been adjusted to increasingly focus on areas where emissions are or remain high and where the highest SO_2 concentrations are expected to occur (within higher SO_2 emission areas and around significant SO_2 sources), while a minority of sites provide valuable data on what can be considered background concentrations.

The data presented and reviewed in this document indicate that the current SO_2 monitoring network is appropriately focused to characterize air quality where SO_2 concentrations are expected to be high in the ambient air, per the existing minimum monitoring requirements, from outcomes of the DRR rulemaking, and from additional efforts by SLTs to characterize air quality around sources in support of implementing the NAAQS. This focused network provides data needed for implementation of the primary SO_2 NAAQS, which can also be used for determining compliance with the proposed Secondary SO_2 NAAQS by providing ambient SO_2 concentrations that will inform the protection of the public welfare from ecological effects associated with ecosystem deposition. In light of the data presented and reviewed here, the EPA believes that the current network is adequate for the purpose of providing data that would be needed in implementing the proposed secondary SO_2 NAAQS, and modification to the existing minimum monitoring requirements are not necessary. In regard to network adaptability, the EPA notes that the SO_2 monitoring network has and can continue to evolve in response to changing data needs, even without EPA making changes to minimum monitoring requirements. The state, local, and Tribal air agencies who operate the large majority of the network, as well as industry stakeholders, have the ability make adjustments to the network when a new need arises or air quality conditions change. Further, the EPA has authority through 40 CFR Part 58, Appendix D, Section 4.4.3, for its Regional Administrators to work with states to require SO_2 monitoring above the minimum monitoring requirements where the network is not sufficient to meet its objectives. This means that monitoring can be added in an area that has the potential to experience concentrations that violate or contribute to a violation of the NAAQS. In summary, the EPA will not propose to change the minimum monitoring requirements as part of the proposal to revise the secondary SO_2 NAAQS as the network is currently adequate, and because the EPA and its stakeholders have the authority and ability to adjust monitoring efforts and redirect resources as needed to continue to ensure that the overarching monitoring objectives of the network are fulfilled.

Appendix A

Listing of monitoring sites reporting data to AQS (circa 2023) with select meta-data							
AQS ID	**Latitude**	**Longitude**	**State Name**	**County Name**	**Measurement Scale**	**Monitor Type**	**Monitor Objective(s)**
01-073-0023	33.553056	-86.815	Alabama	Shelby	MIDDLE SCALE	SLAMS	Highest Concentration
01-073-1003	33.485556	-86.915	Alabama	Jefferson	NEIGHBORHOOD	SLAMS	Other
01-097-0003	30.770181	-88.087761	Alabama	Mobile	NEIGHBORHOOD	SLAMS	Population Exposure
01-117-9001	33.0928	-86.8072	Alabama	Jefferson	NEIGHBORHOOD	SLAMS	Highest Concentration
01-119-0003	32.362606	-88.277992	Alabama	Sumter	REGIONAL SCALE	SLAMS	General Background
02-090-0034	64.84569	-147.727413	Alaska	Fairbanks North Star	NEIGHBORHOOD	SLAMS	Population Exposure
02-090-0035	64.762641	-147.310279	Alaska	Fairbanks North Star	NEIGHBORHOOD	SPM	Population Exposure
04-007-0011	33.3855	-110.867267	Arizona	Gila	NEIGHBORHOOD	SLAMS	Source Oriented
04-007-0012	33.397433	-110.87445	Arizona	Gila	NEIGHBORHOOD	SLAMS	Source Oriented
04-007-1001	33.006179	-110.785797	Arizona	Maricopa	NEIGHBORHOOD	SLAMS	Highest Concentration
04-013-3002	33.45797	-112.04659	Arizona	Maricopa	MIDDLE SCALE	SLAMS	Highest Concentration
04-013-9812	33.4265	-112.11821	Arizona	Maricopa	NEIGHBORHOOD	SLAMS	Population Exposure
04-013-9997	33.503833	-112.095767	Arizona	Gila	NEIGHBORHOOD	SLAMS	Source Oriented
04-019-1028	32.29515	-110.9823	Arizona	Pima	NEIGHBORHOOD	SLAMS	Population Exposure
05-119-0007	34.756189	-92.281296	Arkansas	Pulaski	NEIGHBORHOOD	SLAMS	Population Exposure
06-001-0011	37.814781	-122.282347	California	Contra Costa	NEIGHBORHOOD	SLAMS	Source Oriented
06-013-	37.936013	-122.026154	California	Contra Costa	NEIGHBORHOOD	SPM	Source Oriented

0002							
06-013-0006	37.948172	-122.364852	California	Contra Costa	NEIGHBORHOOD	SLAMS	Source Oriented
06-013-1001	38.05492	-122.233229	California	Contra Costa	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented
06-013-1002	38.006311	-121.641918	California	Contra Costa	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented
06-013-1004	37.9604	-122.356811	California	Imperial	NEIGHBORHOOD	SLAMS	Population Exposure
06-013-2001	38.012816	-122.134467	California	Fresno	URBAN SCALE	SLAMS	Population Exposure
06-019-0011	36.78538	-119.77321	California	Alameda	NEIGHBORHOOD	SLAMS	Population Exposure
06-023-1004	40.77678	-124.17949	California	Contra Costa	REGIONAL SCALE	SLAMS	Regional Transport
06-025-0005	32.67618	-115.48307	California	Los Angeles	NEIGHBORHOOD	SLAMS	Population Exposure
06-027-0002	37.360684	-118.330783	California	Solano	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented
06-037-1103	34.06659	-118.22688	California	Los Angeles	URBAN SCALE	SLAMS	Population Exposure
06-037-4009	33.793713	-118.171019	California	San Bernardino	NEIGHBORHOOD	SLAMS	Population Exposure
06-065-8001	33.99958	-117.41601	California	Santa Clara	NEIGHBORHOOD	SLAMS	Population Exposure
06-067-0006	38.613779	-121.368014	California	Riverside	NEIGHBORHOOD	SLAMS	Population Exposure
06-071-2002	34.10002	-117.49201	California	San Luis Obispo	MIDDLE SCALE	SLAMS	Source Oriented
06-073-1022	32.789565	-116.944308	California	Santa Barbara	NEIGHBORHOOD	SLAMS	Population Exposure
06-079-2004	35.02083	-120.56388	California	Sacramento	URBAN SCALE	SLAMS	Population Exposure
06-083-1013	34.725352	-120.428717	California	Humboldt	NEIGHBORHOOD	SPM	Population Exposure
06-083-	34.414942	-119.879511	California	Inyo	REGIONAL SCALE	SLAMS	General Background

1020							
06-083-1025	34.48974	-120.04692	California	San Diego	NEIGHBORHOOD	SLAMS	General Background
06-083-2004	34.63782	-120.4575	California	Santa Barbara	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
06-085-0005	37.348497	-121.894898	California	Santa Barbara	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
06-095-0004	38.102507	-122.237976	California	Santa Barbara	NEIGHBORHOOD	INDUSTRIAL	Unknown
08-001-3001	39.838119	-104.94984	Colorado	El Paso	MICROSCALE	SLAMS	Highest Concentration
08-007-7004	37.205862	-107.254118	Colorado	Archuleta	URBAN SCALE	SPM	General Background
08-031-0002	39.751184	-104.987625	Colorado	Adams	NEIGHBORHOOD	SLAMS	Population Exposure
08-031-0026	39.77949	-105.00518	Colorado	Denver	NEIGHBORHOOD	SLAMS	Highest Concentration
08-041-0015	38.830895	-104.839243	Colorado	Denver	NEIGHBORHOOD	SLAMS	Population Exposure
09-001-0010	41.170833	-73.194722	Connecticut	Fairfield	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented; Highest Concentration
09-005-0005	41.821342	-73.297257	Connecticut	Litchfield	REGIONAL SCALE	SLAMS	Regional Transport
09-009-0027	41.3014	-72.902871	Connecticut	New Haven	NEIGHBORHOOD	SLAMS	Population Exposure
10-003-1007	39.5513	-75.732	Delaware	New Castle	NEIGHBORHOOD	SLAMS	Population Exposure
10-003-1008	39.57768	-75.6036	Delaware	New Castle	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented
10-003-1013	39.773889	-75.496389	Delaware	New Castle	NEIGHBORHOOD	SLAMS	Population Exposure
10-003-2004	39.739444	-75.558056	Delaware	New Castle	URBAN SCALE	SLAMS	Population Exposure; General Background
10-005-1003	38.7791	-75.16323	Delaware	Sussex	NEIGHBORHOOD	SLAMS	Population Exposure

11-001-0043	38.921847	-77.013178	District Of Columbia	District of Columbia	URBAN SCALE	SLAMS	Population Exposure; General Background
12-011-0034	26.053889	-80.256944	Florida	Nassau	NEIGHBORHOOD	SLAMS	Highest Concentration
12-017-0006	28.958644	-82.642965	Florida	Hillsborough	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented
12-031-0032	30.356339	-81.635396	Florida	Hillsborough	NEIGHBORHOOD	SLAMS	Population Exposure
12-033-0004	30.525367	-87.20355	Florida	Putnam	NEIGHBORHOOD	SLAMS	Source Oriented; Highest Concentration
12-047-0015	30.42659	-82.794715	Florida	Citrus	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented
12-047-0017	30.426029	-82.795356	Florida	Polk	URBAN SCALE	SLAMS	Population Exposure
12-057-0109	27.854176	-82.383728	Florida	Duval	NEIGHBORHOOD	SLAMS	Highest Concentration
12-057-0112	27.779712	-82.419835	Florida	Hillsborough	NEIGHBORHOOD	SPM	Source Oriented
12-057-1035	27.928356	-82.454539	Florida	Hamilton	MIDDLE SCALE	SLAMS	Source Oriented
12-057-3002	27.96565	-82.2304	Florida	Pinellas	NEIGHBORHOOD	SLAMS	Population Exposure
12-081-0028	27.638925	-82.547648	Florida	Hillsborough	URBAN SCALE	SLAMS	Population Exposure; General Background
12-086-0019	25.899539	-80.38259	Florida	Manatee	URBAN SCALE	SLAMS	Source Oriented
12-089-0005	30.658552	-81.463168	Florida	Orange	NEIGHBORHOOD	SLAMS	Highest Concentration
12-095-2002	28.596389	-81.3625	Florida	Hamilton	MIDDLE SCALE	SLAMS	Source Oriented
12-103-0023	27.863635	-82.623153	Florida	Escambia	NEIGHBORHOOD	SLAMS	Population Exposure
12-103-5003	28.141667	-82.739722	Florida	Pinellas	NEIGHBORHOOD	SLAMS	Highest Concentration
12-105-6005	27.939746	-82.000084	Florida	Wakulla	URBAN SCALE	SLAMS	General Background

12-107-1008	29.687748	-81.656509	Florida	Broward	NEIGHBORHOOD	SLAMS	Population Exposure
12-129-0001	30.0925	-84.161111	Florida	Miami-Dade	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented
13-021-0012	32.805264	-83.543493	Georgia	Richmond	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented
13-051-0021	32.06848	-81.04942	Georgia	Chatham	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented
13-051-1002	32.090779	-81.130222	Georgia	Chatham	NEIGHBORHOOD	SLAMS	Source Oriented
13-089-0002	33.6878	-84.2905	Georgia	Fulton	NEIGHBORHOOD	SLAMS	Population Exposure
13-121-0055	33.720742	-84.357316	Georgia	Bibb	URBAN SCALE	SLAMS	Population Exposure
13-127-0006	31.169805	-81.495035	Georgia	DeKalb	NEIGHBORHOOD	SLAMS	Population Exposure
13-245-0091	33.4339	-82.0224	Georgia	Glynn	NEIGHBORHOOD	SPM	Population Exposure
15-001-0005	19.4308	-155.2578	Hawaii	Hawaii	NEIGHBORHOOD	SPM	Population Exposure
15-001-1006	19.717562	-155.11053	Hawaii	Hawaii	NEIGHBORHOOD	Federal	Highest Concentration
15-001-1012	19.509778	-155.913417	Hawaii	Hawaii	NEIGHBORHOOD	SPM	Population Exposure
15-001-2016	19.2039	-155.480183	Hawaii	Honolulu	NEIGHBORHOOD	SLAMS	Source Oriented
15-001-2020	19.117561	-155.778136	Hawaii	Hawaii	NEIGHBORHOOD	SPM	Population Exposure
15-001-2021	19.977467	-155.798067	Hawaii	Hawaii	NEIGHBORHOOD	SPM	Population Exposure
15-001-2023	19.555444	-155.102028	Hawaii	Hawaii	NEIGHBORHOOD	SPM	Population Exposure
15-001-2035	19.465	-154.914	Hawaii	Hawaii	NEIGHBORHOOD	SLAMS	Population Exposure
15-001-3027	19.611914	-155.055037	Hawaii	Hawaii	NEIGHBORHOOD	SLAMS	Population Exposure

15-001-3028	19.063186	-155.58676	Hawaii	Honolulu	NEIGHBORHOOD	SLAMS	Population Exposure
15-001-3033	19.060655	-155.579159	Hawaii	Kauai	NEIGHBORHOOD	SPM	Source Oriented
15-003-0010	21.323745	-158.088613	Hawaii	Hawaii	NEIGHBORHOOD	SPM	Population Exposure
15-003-1001	21.30758	-157.85542	Hawaii	Hawaii	NA	SPM	Population Exposure
15-003-4001	21.367833	-158.105278	Hawaii	Honolulu	NEIGHBORHOOD	SLAMS	Population Exposure
15-007-0007	21.949599	-159.36624	Hawaii	Hawaii	NEIGHBORHOOD	SPM	Population Exposure
16-001-0010	43.600699	-116.347853	Idaho	Bannock	MIDDLE SCALE	SLAMS	Highest Concentration
16-005-0004	42.916389	-112.515833	Idaho	Caribou	MIDDLE SCALE	SLAMS	Source Oriented
16-029-0031	42.695198	-111.594669	Idaho	Ada	NEIGHBORHOOD	SLAMS	Population Exposure
17-019-1001	40.05278	-88.37251	Illinois	Macon	NEIGHBORHOOD	SLAMS	Source Oriented
17-031-0076	41.7514	-87.713488	Illinois	Macon	NEIGHBORHOOD	SLAMS	Source Oriented
17-031-1601	41.66812	-87.99057	Illinois	Wabash	MIDDLE SCALE	INDUSTRIAL	Highest Concentration
17-031-4201	42.139996	-87.799227	Illinois	Macon	NEIGHBORHOOD	SLAMS	Population Exposure
17-099-0007	41.293015	-89.049425	Illinois	Monroe	MIDDLE SCALE	INDUSTRIAL	Source Oriented
17-115-0013	39.866834	-88.925594	Illinois	Tazewell	NEIGHBORHOOD	SLAMS	Source Oriented; Highest Concentration
17-115-0217	39.850712	-88.933635	Illinois	Cook	URBAN SCALE	SLAMS	Population Exposure
17-115-0317	39.846856	-88.923323	Illinois	Saint Clair	NEIGHBORHOOD	SLAMS	Population Exposure
17-117-0002	39.396075	-89.809739	Illinois	Madison	NEIGHBORHOOD	SLAMS	Population Exposure

17-119-3007	38.860669	-90.105851	Illinois	Cook	NEIGHBORHOOD	SLAMS	Population Exposure
17-133-9001	38.15908	-90.22728	Illinois	La Salle	NEIGHBORHOOD	SLAMS	Source Oriented; Highest Concentration
17-163-0010	38.612034	-90.160477	Illinois	Cook	URBAN SCALE	SLAMS	Population Exposure
17-179-0004	40.55646	-89.654028	Illinois	Macoupin	REGIONAL SCALE	SLAMS	Population Exposure; General Background
17-185-0001	38.397789	-87.773853	Illinois	Champaign	REGIONAL SCALE	Federal	Regional Transport; Welfare Impacts
18-043-0008	38.317813	-85.833322	Indiana	Porter	MIDDLE SCALE	INDUSTRIAL	Highest Concentration
18-043-1004	38.30703	-85.832974	Indiana	Gibson	MIDDLE SCALE	INDUSTRIAL	Highest Concentration
18-051-0002	38.392991	-87.748323	Indiana	Lake	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
18-089-0022	41.606662	-87.304943	Indiana	Warrick	NEIGHBORHOOD	SPM	Population Exposure; Highest Concentration
18-089-0034	41.653501	-87.435561	Indiana	Lake	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
18-089-2008	41.639306	-87.493609	Indiana	Lake	MIDDLE SCALE	SLAMS	Source Oriented; Highest Concentration
18-097-0057	39.749027	-86.186269	Indiana	Vanderburgh	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
18-097-0078	39.810833	-86.114444	Indiana	Marion	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
18-127-0028	41.635404	-87.150567	Indiana	Floyd	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
18-163-0021	38.013333	-87.577222	Indiana	Vigo	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
18-167-0018	39.485987	-87.401312	Indiana	Marion	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
18-173-0011	37.954444	-87.321667	Indiana	Floyd	NEIGHBORHOOD	SLAMS	Population Exposure
19-045-0019	41.823283	-90.211982	Iowa	Linn	MIDDLE SCALE	SLAMS	Source Oriented

19-113-0040	41.97677	-91.68766	Iowa	Clinton	MIDDLE SCALE	SPM	Source Oriented
19-113-0041	41.948708	-91.639535	Iowa	Muscatine	MIDDLE SCALE	SLAMS	Source Oriented
19-139-0016	41.419429	-91.070975	Iowa	Muscatine	NEIGHBORHOOD	SPM	Population Exposure
19-139-0019	41.401459	-91.068449	Iowa	Muscatine	NEIGHBORHOOD	SPM	Population Exposure
19-139-0020	41.4069	-91.0616	Iowa	Linn	NEIGHBORHOOD	SPM	Population Exposure
19-163-0015	41.530011	-90.587611	Iowa	Scott	URBAN SCALE	SLAMS	Population Exposure
19-177-0006	40.695078	-92.006318	Iowa	Van Buren	REGIONAL SCALE	SPM	General Background
20-133-0003	37.67696	-95.47594	Kansas	Wyandotte	NEIGHBORHOOD	SLAMS	Population Exposure
20-191-0002	37.47689	-97.366399	Kansas	Trego	REGIONAL SCALE	SLAMS	General Background
20-195-0001	38.770081	-99.763424	Kansas	Neosho	NEIGHBORHOOD	SLAMS	Population Exposure
20-209-0021	39.117219	-94.635605	Kansas	Sumner	REGIONAL SCALE	SLAMS	Regional Transport
21-019-0017	38.45934	-82.64041	Kentucky	Henderson	NEIGHBORHOOD	SLAMS	Source Oriented
21-037-3002	39.021881	-84.47445	Kentucky	Jefferson	NEIGHBORHOOD	SLAMS	Highest Concentration
21-059-0005	37.780776	-87.075307	Kentucky	Campbell	URBAN SCALE	SLAMS	Population Exposure
21-061-0501	37.13179	-86.142953	Kentucky	McCracken	NEIGHBORHOOD	SLAMS	Population Exposure
21-067-0012	38.06503	-84.49761	Kentucky	Daviess	NEIGHBORHOOD	SLAMS	Population Exposure
21-089-0007	38.548136	-82.731163	Kentucky	Jefferson	URBAN SCALE	SLAMS	Population Exposure
21-101-1011	37.654381	-87.511427	Kentucky	Greenup	NEIGHBORHOOD	SPM	Population Exposure

21-111-0051	38.06091	-85.89804	Kentucky	Boyd	NEIGHBORHOOD	SLAMS	Population Exposure
21-111-0067	38.22876	-85.65452	Kentucky	Jefferson	NEIGHBORHOOD	SLAMS	Population Exposure
21-111-1041	38.23158	-85.82678	Kentucky	Fayette	NEIGHBORHOOD	SLAMS	Population Exposure
21-113-0001	37.89147	-84.58825	Kentucky	Jessamine	URBAN SCALE	SPM	Population Exposure
21-145-1024	37.05822	-88.57251	Kentucky	Edmonson	REGIONAL SCALE	Federal	Regional Transport; Welfare Impacts
21-145-1027	37.08727	-88.60801	Kentucky	McCracken	NEIGHBORHOOD	SLAMS	Population Exposure
22-015-0008	32.535293	-93.747041	Louisiana	St. Charles	NEIGHBORHOOD	SLAMS	Source Oriented; Highest Concentration
22-019-0008	30.262604	-93.285084	Louisiana	St. Bernard	NEIGHBORHOOD	SLAMS	Source Oriented
22-033-0009	30.461981	-91.179219	Louisiana	West Baton Rouge	NEIGHBORHOOD	SLAMS	Highest Concentration
22-087-0004	29.939614	-89.923883	Louisiana	Calcasieu	NEIGHBORHOOD	SLAMS	Population Exposure
22-087-0007	29.943164	-89.97625	Louisiana	East Baton Rouge	NEIGHBORHOOD	SLAMS	Population Exposure
22-089-0006	29.997366	-90.411185	Louisiana	St. Bernard	URBAN SCALE	SPM	General Background
22-121-0001	30.500642	-91.213556	Louisiana	Bossier	NEIGHBORHOOD	SLAMS	Population Exposure
23-003-1100	46.696431	-68.033006	Maine	Hancock	REGIONAL SCALE	SPM	General Background; Regional Transport
23-009-0103	44.37705	-68.2609	Maine	Aroostook	NEIGHBORHOOD	TRIBAL	General Background
24-003-2002	39.158911	-76.511025	Maryland	Anne Arundel	NEIGHBORHOOD	SLAMS	Highest Concentration
24-005-3001	39.310833	-76.474444	Maryland	Baltimore	NEIGHBORHOOD	SLAMS	Highest Concentration
24-019-0004	38.587525	-76.141006	Maryland	Garrett	REGIONAL SCALE	SLAMS	Regional Transport

24-023-0002	39.70595	-79.012	Maryland	Prince George's	URBAN SCALE	SLAMS	General Background
24-033-0030	39.055277	-76.878333	Maryland	Dorchester	REGIONAL SCALE	SLAMS	Population Exposure
25-005-1004	41.685707	-71.169235	Massachusetts	Bristol	NEIGHBORHOOD	SLAMS	Highest Concentration
25-013-0018	42.120229	-72.584503	Massachusetts	Hampden	URBAN SCALE	SLAMS	Population Exposure
25-015-4002	42.298493	-72.334079	Massachusetts	Suffolk	NEIGHBORHOOD	SLAMS	Highest Concentration
25-025-0002	42.348873	-71.097163	Massachusetts	Suffolk	NEIGHBORHOOD	SLAMS	Population Exposure
25-025-0042	42.3295	-71.0826	Massachusetts	Worcester	URBAN SCALE	SLAMS	Population Exposure
25-027-0023	42.263955	-71.794322	Massachusetts	Hampshire	URBAN SCALE	SLAMS	Population Exposure
26-065-0018	42.761387	-84.562779	Michigan	St. Clair	URBAN SCALE	SLAMS	Highest Concentration
26-081-0020	42.984173	-85.671339	Michigan	St. Clair	MIDDLE SCALE	INDUSTRIAL	Source Oriented
26-147-0005	42.953336	-82.456229	Michigan	Wayne	NEIGHBORHOOD	SLAMS	Highest Concentration
26-147-0913	42.786109	-82.527801	Michigan	St. Clair	MIDDLE SCALE	INDUSTRIAL	Source Oriented
26-147-0914	42.773556	-82.47583	Michigan	Wayne	NEIGHBORHOOD	SLAMS	Population Exposure
26-163-0001	42.22862	-83.2082	Michigan	Wayne	NEIGHBORHOOD	SLAMS	Population Exposure
26-163-0015	42.302786	-83.10653	Michigan	Wayne	NEIGHBORHOOD	SLAMS	Population Exposure
26-163-0097	42.261669	-83.157893	Michigan	Wayne	MIDDLE SCALE	SLAMS	Welfare Impacts
26-163-0098	42.312158	-83.091943	Michigan	Wayne	NEIGHBORHOOD	SLAMS	Population Exposure
26-163-0099	42.295824	-83.129431	Michigan	Ingham	NEIGHBORHOOD	SLAMS	Population Exposure

26-163-0100	42.312078	-83.103469	Michigan	Kent	NEIGHBORHOOD	SLAMS	Population Exposure
26-163-1005	42.289449	-83.153435	Michigan	Wayne	MICROSCALE	INDUSTRIAL	Source Oriented
26-163-1006	42.283069	-83.161145	Michigan	Wayne	MICROSCALE	INDUSTRIAL	Source Oriented
26-163-1008	42.281869	-83.151415	Michigan	Wayne	MICROSCALE	INDUSTRIAL	Source Oriented
26-163-1009	42.270009	-83.162585	Michigan	Wayne	MICROSCALE	INDUSTRIAL	Source Oriented
27-003-1002	45.13768	-93.207615	Minnesota	Saint Louis	NEIGHBORHOOD	SLAMS	Population Exposure
27-037-0020	44.76323	-93.03255	Minnesota	Dakota	MIDDLE SCALE	SLAMS	Source Oriented
27-037-0423	44.77553	-93.06299	Minnesota	Hennepin	MICROSCALE	SLAMS	Population Exposure
27-037-0443	44.745662	-93.05541	Minnesota	Washington	MIDDLE SCALE	SLAMS	Source Oriented
27-053-0954	44.980995	-93.273719	Minnesota	Dakota	MIDDLE SCALE	SLAMS	Source Oriented
27-137-7001	47.523355	-92.536305	Minnesota	Dakota	MIDDLE SCALE	SLAMS	Source Oriented
27-163-0436	44.84737	-92.9954	Minnesota	Anoka	URBAN SCALE	SLAMS	Population Exposure
28-049-0020	32.329111	-90.182722	Mississippi	Jackson	NEIGHBORHOOD	SLAMS	Population Exposure
28-059-0006	30.378287	-88.53393	Mississippi	Hinds	NEIGHBORHOOD	SLAMS	Population Exposure
29-071-9001	38.572522	-90.796911	Missouri	New Madrid	MIDDLE SCALE	INDUSTRIAL	Source Oriented
29-071-9002	38.52814	-90.86326	Missouri	New Madrid	MIDDLE SCALE	INDUSTRIAL	Source Oriented
29-093-0034	37.65214	-91.11689	Missouri	New Madrid	MIDDLE SCALE	INDUSTRIAL	Source Oriented
29-093-9009	37.65319	-91.12795	Missouri	Iron	MIDDLE SCALE	INDUSTRIAL	Source Oriented

29-093-9010	37.64876	-91.1498	Missouri	Iron	MIDDLE SCALE	SPM	Source Oriented
29-093-9011	37.63211	-91.13565	Missouri	Iron	MIDDLE SCALE	INDUSTRIAL	Source Oriented
29-095-0034	39.104686	-94.57079	Missouri	Iron	MIDDLE SCALE	INDUSTRIAL	Source Oriented
29-099-0027	38.26351	-90.37993	Missouri	Franklin	MIDDLE SCALE	INDUSTRIAL	Source Oriented
29-099-9007	38.144972	-90.304783	Missouri	Franklin	MIDDLE SCALE	INDUSTRIAL	Source Oriented
29-099-9009	38.10525	-90.29842	Missouri	Saint Charles	MIDDLE SCALE	INDUSTRIAL	Source Oriented
29-137-0001	39.474976	-91.788991	Missouri	Saint Charles	MIDDLE SCALE	INDUSTRIAL	Source Oriented
29-143-9001	36.51364	-89.56093	Missouri	Jefferson	MIDDLE SCALE	INDUSTRIAL	Source Oriented
29-143-9002	36.50838	-89.56074	Missouri	Jefferson	MIDDLE SCALE	INDUSTRIAL	Source Oriented
29-143-9003	36.50899	-89.57099	Missouri	Saint Louis	MICROSCALE	SPM	Population Exposure
29-183-9002	38.581799	-90.865528	Missouri	Jefferson	MIDDLE SCALE	SLAMS	Source Oriented; Highest Concentration
29-183-9004	38.595607	-90.830618	Missouri	St. Louis City	NEIGHBORHOOD	SLAMS	Population Exposure
29-189-0016	38.75264	-90.44884	Missouri	Jackson	MIDDLE SCALE	SLAMS	Population Exposure
29-510-0085	38.656429	-90.198348	Missouri	Monroe	NA	SPM	General Background
30-049-0004	46.8505	-111.987164	Montana	Yellowstone	NEIGHBORHOOD	SLAMS	Source Oriented; Highest Concentration
30-083-0002	47.8679	-104.676944	Montana	Richland	NEIGHBORHOOD	SLAMS	Source Oriented
30-111-0066	45.786579	-108.45878	Montana	Lewis and Clark	REGIONAL SCALE	SLAMS	General Background
31-055-0019	41.247486	-95.973142	Nebraska	Douglas	NEIGHBORHOOD	SLAMS	Population Exposure

31-055-0053	41.322508	-95.938593	Nebraska	Douglas	NEIGHBORHOOD	SLAMS	Population Exposure
32-003-0540	36.141875	-115.078742	Nevada	Clark	NEIGHBORHOOD	SLAMS	Population Exposure
32-031-0031	39.521933	-119.7954	Nevada	Washoe	NEIGHBORHOOD	SLAMS	Population Exposure
33-011-5001	42.86183	-71.878626	New Hampshire	Merrimack	NEIGHBORHOOD	SLAMS	Source Oriented
33-013-1006	43.13246	-71.458246	New Hampshire	Rockingham	NEIGHBORHOOD	SLAMS	Population Exposure
33-015-0014	43.075371	-70.748017	New Hampshire	Rockingham	REGIONAL SCALE	SLAMS	Population Exposure
33-015-0018	42.862531	-71.38014	New Hampshire	Hillsborough	REGIONAL SCALE	SLAMS	Regional Transport
34-001-0006	39.464872	-74.448736	New Jersey	Hudson	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
34-007-0002	39.934559	-75.125219	New Jersey	Camden	NEIGHBORHOOD	SLAMS	Population Exposure
34-013-0003	40.720989	-74.192892	New Jersey	Union	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented; Highest Concentration
34-017-0006	40.67025	-74.126081	New Jersey	Morris	URBAN SCALE	SLAMS	Population Exposure; General Background
34-017-1002	40.731645	-74.066308	New Jersey	Warren	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
34-027-3001	40.787628	-74.676301	New Jersey	Hudson	NEIGHBORHOOD	SLAMS	Population Exposure
34-039-0003	40.662435	-74.214854	New Jersey	Union	MIDDLE SCALE	SLAMS	Population Exposure
34-039-0004	40.64144	-74.208365	New Jersey	Essex	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
34-041-0007	40.92458	-75.067815	New Jersey	Atlantic	URBAN SCALE	SLAMS	Population Exposure; General Background
35-001-0023	35.1343	-106.5852	New Mexico	San Juan	REGIONAL SCALE	SLAMS	Source Oriented
35-001-	35.063569	-106.647503	New Mexico	Bernalillo	NEIGHBORHOOD	SLAMS	Population Exposure

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35-045-0009	36.742227	-107.977567	New Mexico	Bernalillo	NEIGHBORHOOD	SPM	Population Exposure
35-045-1005	36.796667	-108.473138	New Mexico	San Juan	NEIGHBORHOOD	SLAMS	Source Oriented
35-045-1233	36.8071	-108.69523	New Mexico	San Juan	NA	TRIBAL	Population Exposure
36-005-0110	40.816	-73.902	New York	St. Lawrence	MIDDLE SCALE	SLAMS	Source Oriented
36-005-0133	40.8679	-73.87809	New York	St. Lawrence	NEIGHBORHOOD	SLAMS	Source Oriented
36-029-0005	42.876907	-78.809526	New York	Nassau	NEIGHBORHOOD	SLAMS	Population Exposure; General Background
36-029-1014	42.99813	-78.89926	New York	Erie	NEIGHBORHOOD	SLAMS	Population Exposure
36-031-0003	44.39308	-73.8589	New York	Erie	NEIGHBORHOOD	SLAMS	Highest Concentration
36-041-0005	43.44957	-74.51625	New York	Queens	NEIGHBORHOOD	SLAMS	Population Exposure; General Background
36-055-1007	43.14618	-77.54817	New York	Bronx	URBAN SCALE	SLAMS	General Background
36-059-0005	40.74316	-73.58549	New York	Bronx	URBAN SCALE	SLAMS	General Background
36-081-0124	40.73614	-73.82153	New York	Monroe	NEIGHBORHOOD	SLAMS	Population Exposure
36-089-0004	44.955468	-74.9078	New York	Essex	REGIONAL SCALE	SLAMS; SLAMS	General Background
36-089-0005	44.965412	-74.875	New York	Hamilton	REGIONAL SCALE	SLAMS; SLAMS	General Background
36-101-0003	42.09142	-77.20978	New York	Steuben	REGIONAL SCALE	SLAMS; SLAMS	General Background
37-013-0151	35.428	-76.7399	North Carolina	Haywood	MIDDLE SCALE	SLAMS	Source Oriented
37-027-0003	35.9359	-81.5306	North Carolina	Beaufort	NA; URBAN SCALE	SLAMS	Source Oriented
37-051-	35.002304	-78.991692	North Carolina	Rockingham	URBAN SCALE	SLAMS	Population Exposure;

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37-063-0015	36.032955	-78.904037	North Carolina	Forsyth	NEIGHBORHOOD	SLAMS	Population Exposure
37-067-0022	36.11094	-80.224501	North Carolina	Mecklenburg	NEIGHBORHOOD	SLAMS	Population Exposure
37-087-0013	35.534102	-82.852868	North Carolina	Durham	URBAN SCALE	SLAMS	Population Exposure
37-117-0001	35.81066	-76.9063	North Carolina	Wake	NEIGHBORHOOD	SLAMS	Population Exposure
37-119-0041	35.2401	-80.785683	North Carolina	Caldwell	REGIONAL SCALE	SPM	General Background
37-157-0099	36.308889	-79.859167	North Carolina	Martin	URBAN SCALE	SLAMS	General Background
37-183-0014	35.856111	-78.574167	North Carolina	Cumberland	NEIGHBORHOOD	SPM	Population Exposure; General Background
38-007-0002	46.8943	-103.37853	North Dakota	Mercer	URBAN SCALE	INDUSTRIAL	Source Oriented
38-013-0004	48.64193	-102.4018	North Dakota	Mercer	URBAN SCALE	SLAMS	Population Exposure
38-015-0003	46.825425	-100.76821	North Dakota	Burke	REGIONAL SCALE	SLAMS	Regional Transport
38-017-1004	46.933754	-96.85535	North Dakota	Williams	REGIONAL SCALE	SLAMS	Source Oriented
38-025-0004	47.342423	-102.645864	North Dakota	Oliver	URBAN SCALE	SLAMS	Source Oriented
38-053-0002	47.5812	-103.2995	North Dakota	Burleigh	URBAN SCALE	SLAMS	Population Exposure
38-057-0004	47.298611	-101.766944	North Dakota	Ward	REGIONAL SCALE	SLAMS	General Background
38-057-0118	47.371672	-101.78128	North Dakota	Dunn	REGIONAL SCALE	SLAMS	General Background
38-065-0002	47.185833	-101.428056	North Dakota	Billings	REGIONAL SCALE	SLAMS	General Background
38-101-0003	47.940861	-101.571583	North Dakota	McKenzie	REGIONAL SCALE	SLAMS	General Background
38-105-	48.392666	-102.910693	North Dakota	Cass	URBAN SCALE	SLAMS	Population Exposure;

0105							Highest Concentration
38-105-0106	48.465253	-102.894086	North Dakota	Williams	URBAN SCALE	INDUSTRIAL	Source Oriented
39-003-0009	40.770944	-84.0539	Ohio	Jefferson	NEIGHBORHOOD	SLAMS	Population Exposure
39-013-0006	39.9679	-80.7464	Ohio	Gallia	NEIGHBORHOOD	SLAMS	Source Oriented
39-017-0019	39.479822	-84.409617	Ohio	Gallia	NEIGHBORHOOD	SLAMS	Source Oriented
39-017-0020	39.472436	-84.394952	Ohio	Gallia	NEIGHBORHOOD	SLAMS	Source Oriented
39-017-0021	39.46619	-84.40256	Ohio	Guernsey	NEIGHBORHOOD	INDUSTRIAL	General Background
39-035-0038	41.477011	-81.682383	Ohio	Lake	MIDDLE SCALE	SLAMS	Source Oriented
39-035-0060	41.492117	-81.678449	Ohio	Cuyahoga	NEIGHBORHOOD	SLAMS	Highest Concentration
39-035-0065	41.446624	-81.662356	Ohio	Hamilton	URBAN SCALE	SLAMS	Population Exposure
39-049-0034	40.002707	-82.994424	Ohio	Butler	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
39-053-0004	38.95018	-82.12211	Ohio	Butler	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
39-053-0005	38.89495	-82.14893	Ohio	Butler	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
39-053-0006	38.94945	-82.1104	Ohio	Washington	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
39-059-0003	39.99388	-81.5589	Ohio	Cuyahoga	NEIGHBORHOOD	SLAMS	Population Exposure
39-059-0004	39.983752	-81.562234	Ohio	Guernsey	NEIGHBORHOOD	INDUSTRIAL	General Background
39-061-0010	39.21487	-84.69086	Ohio	Scioto	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
39-061-0040	39.12886	-84.50404	Ohio	Hancock	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
39-063-	41.093169	-83.423448	Ohio	Morgan	NEIGHBORHOOD	SLAMS	Population Exposure

0005							
39-081-0017	40.3663	-80.6158	Ohio	Hamilton	URBAN SCALE	SLAMS	Population Exposure
39-085-0007	41.726811	-81.242156	Ohio	Lucas	NEIGHBORHOOD	SLAMS	Population Exposure
39-087-0012	38.508075	-82.659241	Ohio	Cuyahoga	NEIGHBORHOOD	SLAMS	Highest Concentration
39-095-0008	41.6637	-83.4725	Ohio	Scioto	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
39-099-0015	41.106182	-80.640576	Ohio	Preble	REGIONAL SCALE	SLAMS	General Background
39-115-0004	39.63223	-81.67005	Ohio	Mahoning	NEIGHBORHOOD	SLAMS	Population Exposure
39-135-1001	39.83562	-84.720524	Ohio	Summit	NEIGHBORHOOD	SLAMS	Highest Concentration
39-145-0020	38.609338	-82.822512	Ohio	Allen	NEIGHBORHOOD	SLAMS	Population Exposure
39-145-0022	38.588034	-82.834973	Ohio	Belmont	NEIGHBORHOOD	SLAMS	General Background
39-153-0017	41.063526	-81.468956	Ohio	Franklin	NEIGHBORHOOD	SLAMS	Population Exposure
39-167-0011	39.58427	-81.67015	Ohio	Lawrence	NEIGHBORHOOD	SLAMS	Population Exposure
40-001-9009	35.750735	-94.669697	Oklahoma	Garfield	NEIGHBORHOOD	SLAMS	Source Oriented
40-047-0555	36.512363	-97.845959	Oklahoma	Kay	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented
40-071-0604	36.697186	-97.08135	Oklahoma	Tulsa	NEIGHBORHOOD	SLAMS	Source Oriented
40-109-1037	35.614131	-97.475083	Oklahoma	Tulsa	MIDDLE SCALE	SLAMS	Source Oriented
40-143-0175	36.149877	-96.011664	Oklahoma	Tulsa	URBAN SCALE	SLAMS	Population Exposure
40-143-0235	36.126945	-95.998941	Oklahoma	Adair	REGIONAL SCALE	TRIBAL	General Background
40-143-	36.204902	-95.976537	Oklahoma	Oklahoma	URBAN SCALE	SLAMS	Population Exposure

1127							
41-051-0080	45.496641	-122.602877	Oregon	Multnomah	NEIGHBORHOOD	SLAMS	Population Exposure
42-001-0001	39.92002	-77.30968	Pennsylvania	Allegheny	NEIGHBORHOOD	SLAMS	Highest Concentration
42-003-0008	40.46542	-79.960757	Pennsylvania	Allegheny	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
42-003-0064	40.323768	-79.868062	Pennsylvania	Warren	NEIGHBORHOOD	SLAMS	Highest Concentration
42-003-0067	40.375644	-80.169943	Pennsylvania	Warren	MICROSCALE	SPM	Highest Concentration
42-003-1301	40.402328	-79.860973	Pennsylvania	Indiana	NEIGHBORHOOD	SLAMS	Population Exposure
42-007-0002	40.56252	-80.503948	Pennsylvania	Beaver	REGIONAL SCALE	SLAMS	Regional Transport
42-007-0005	40.684722	-80.359722	Pennsylvania	Cambria	NEIGHBORHOOD	SLAMS	Highest Concentration
42-011-0011	40.38335	-75.9686	Pennsylvania	Washington	NEIGHBORHOOD	SLAMS	Population Exposure
42-013-0801	40.535278	-78.370833	Pennsylvania	Washington	REGIONAL SCALE	SLAMS	Regional Transport
42-021-0011	40.309722	-78.915	Pennsylvania	York	NEIGHBORHOOD	SLAMS	Highest Concentration
42-027-0100	40.811389	-77.877028	Pennsylvania	Allegheny	NEIGHBORHOOD	SLAMS	Population Exposure
42-063-0004	40.56333	-78.919972	Pennsylvania	Allegheny	NEIGHBORHOOD	SLAMS	General Background
42-069-2006	41.442778	-75.623056	Pennsylvania	Northampton	NEIGHBORHOOD	SLAMS	Population Exposure
42-095-0025	40.628056	-75.341111	Pennsylvania	Beaver	URBAN SCALE	SLAMS	Population Exposure; Regional Transport
42-101-0048	39.991389	-75.080833	Pennsylvania	Blair	NEIGHBORHOOD	SLAMS	Population Exposure
42-101-0055	39.922867	-75.186921	Pennsylvania	Philadelphia	NEIGHBORHOOD	SLAMS	Population Exposure
42-123-	41.844722	-79.169722	Pennsylvania	Philadelphia	NEIGHBORHOOD	SLAMS	Population Exposure

0004							
42-123-0005	41.825708	-79.119952	Pennsylvania	Adams	REGIONAL SCALE	SLAMS	Regional Transport
42-125-0005	40.146667	-79.902222	Pennsylvania	Centre	NEIGHBORHOOD	SLAMS	Population Exposure
42-125-5001	40.445278	-80.420833	Pennsylvania	Berks	NEIGHBORHOOD	SLAMS	Population Exposure
42-133-0008	39.965278	-76.699444	Pennsylvania	Lackawanna	NEIGHBORHOOD	SLAMS	Population Exposure
44-007-1010	41.841039	-71.36097	Puerto Rico	Bayamon	NEIGHBORHOOD	SLAMS	Population Exposure
45-019-0003	32.882289	-79.977538	Puerto Rico	Catano	URBAN SCALE	SLAMS	Population Exposure
45-019-0021	32.836602	-79.956983	Puerto Rico	Guayama	NEIGHBORHOOD	SLAMS	Source Oriented
45-019-0046	32.941023	-79.657187	Puerto Rico	Salinas	NEIGHBORHOOD	SLAMS	Source Oriented
45-037-0001	33.739963	-81.853635	Rhode Island	Providence	NEIGHBORHOOD	SLAMS	Population Exposure; General Background
45-045-0015	34.843895	-82.414585	South Carolina	Charleston	NEIGHBORHOOD	SLAMS	Population Exposure
45-079-0007	34.093959	-80.962304	South Carolina	Charleston	MIDDLE SCALE	SPM	Population Exposure
45-091-0008	34.977	-81.207	South Carolina	York	NEIGHBORHOOD	SPM	General Background
45-091-8001	34.9127	-80.8745	South Carolina	Charleston	REGIONAL SCALE	SPM	Source Oriented
46-071-0001	43.74561	-101.941218	South Carolina	Edgefield	URBAN SCALE	SPM	General Background
46-099-0009	43.59901	-96.78331	South Carolina	Greenville	NEIGHBORHOOD	SLAMS	Population Exposure
46-103-0020	44.087397	-103.273777	South Carolina	Richland	NEIGHBORHOOD	SLAMS	Population Exposure
47-009-0101	35.63348	-83.941606	South Carolina	York	URBAN SCALE	SPM	General Background
47-037-	36.1424	-86.7341	South Dakota	Pennington	NEIGHBORHOOD	SLAMS	Population Exposure;

0040							Highest Concentration
47-157-0075	35.151699	-89.850249	South Dakota	Minnehaha	NEIGHBORHOOD	SLAMS	Population Exposure
47-163-6001	36.532616	-82.516306	South Dakota	Jackson	REGIONAL SCALE	SLAMS	General Background
47-163-6002	36.521066	-82.502454	Tennessee	Sullivan	URBAN SCALE	SLAMS	Source Oriented
47-163-6003	36.526359	-82.528677	Tennessee	Sullivan	URBAN SCALE	SLAMS	Source Oriented
47-163-6004	36.513026	-82.550498	Tennessee	Sullivan	URBAN SCALE	SLAMS	Source Oriented
48-029-0059	29.275381	-98.311692	Tennessee	Sullivan	URBAN SCALE	SLAMS	Population Exposure; Source Oriented
48-029-1080	29.352911	-98.332814	Tennessee	Davidson	URBAN SCALE	SLAMS	Population Exposure
48-039-1012	28.964394	-95.354974	Tennessee	Shelby	URBAN SCALE	SLAMS	Population Exposure
48-113-0069	32.820061	-96.860117	Tennessee	Blount	REGIONAL SCALE	Federal	Regional Transport; Welfare Impacts
48-139-0016	32.482083	-97.026899	Texas	Hutchinson	NEIGHBORHOOD	SLAMS	Source Oriented
48-141-0044	31.765685	-106.455227	Texas	Howard	NEIGHBORHOOD	SLAMS	Source Oriented
48-161-1084	31.797813	-96.1031	Texas	Potter	NEIGHBORHOOD	SLAMS	Source Oriented
48-167-0005	29.385234	-94.93152	Texas	Navarro	NEIGHBORHOOD	SLAMS	Source Oriented
48-183-0001	32.378696	-94.711813	Texas	Rusk	NEIGHBORHOOD	SPM	Source Oriented
48-201-0051	29.623889	-95.474167	Texas	Orange	NEIGHBORHOOD	SLAMS	Source Oriented
48-201-0416	29.686389	-95.294722	Texas	Jefferson	NEIGHBORHOOD	SLAMS	Source Oriented
48-201-1035	29.733726	-95.257593	Texas	Navarro	URBAN SCALE	SPM	Source Oriented
48-201-	29.670025	-95.128508	Texas	Gregg	NEIGHBORHOOD	SLAMS	Population Exposure;

1039							General Background
48-203-1079	32.470228	-94.481595	Texas	Harrison	NEIGHBORHOOD	SLAMS	Source Oriented
48-227-1072	32.280422	-101.407137	Texas	Jefferson	NEIGHBORHOOD	SLAMS	Population Exposure
48-233-1073	35.6762	-101.4401	Texas	Harris	NEIGHBORHOOD	SLAMS	Population Exposure
48-245-0009	30.036422	-94.071061	Texas	Jefferson	NEIGHBORHOOD	SLAMS	Source Oriented
48-245-0011	29.897516	-93.991084	Texas	Titus	NEIGHBORHOOD	SLAMS	Source Oriented
48-245-1071	29.8442	-93.9652	Texas	Harris	NEIGHBORHOOD	SPM	Population Exposure
48-257-0005	32.564968	-96.317687	Texas	Robertson	NEIGHBORHOOD	SLAMS	Source Oriented
48-309-1037	31.653086	-97.070704	Texas	Potter	NEIGHBORHOOD	SLAMS	Population Exposure
48-349-1051	32.031934	-96.399141	Texas	Kaufman	NEIGHBORHOOD	SLAMS	Population Exposure; General Background
48-349-1081	31.9041	-96.352	Texas	Galveston	NEIGHBORHOOD	SPM	Highest Concentration
48-355-0025	27.76534	-97.434262	Texas	Nueces	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
48-355-0026	27.832413	-97.555387	Texas	Harris	NEIGHBORHOOD	SLAMS	Population Exposure
48-355-0032	27.804489	-97.431553	Texas	Ellis	NEIGHBORHOOD	SLAMS	Source Oriented
48-361-1083	30.153675	-93.725897	Texas	Freestone	NEIGHBORHOOD	SPM	Source Oriented
48-375-1025	35.236736	-101.787405	Texas	Harris	NEIGHBORHOOD	SLAMS	Population Exposure
48-375-1077	35.3165	-101.7418	Texas	McLennan	URBAN SCALE	SLAMS	General Background
48-395-1076	31.168889	-96.481944	Texas	El Paso	NEIGHBORHOOD	SLAMS	Highest Concentration
48-401-	32.277929	-94.570851	Texas	Bexar	NEIGHBORHOOD	SLAMS	Source Oriented

1082							
48-449-1078	33.0752	-94.8474	Texas	Dallas	NEIGHBORHOOD	SLAMS	Population Exposure
48-453-0014	30.354944	-97.761803	Texas	Nueces	NEIGHBORHOOD	SLAMS	Population Exposure
49-035-2005	40.598056	-111.894167	Texas	Nueces	NEIGHBORHOOD	SLAMS	Population Exposure
49-035-3006	40.736389	-111.872222	Texas	Travis	URBAN SCALE	SLAMS	Population Exposure
49-035-3010	40.78422	-111.931	Texas	Bexar	NEIGHBORHOOD	SLAMS	Population Exposure; Source Oriented
49-035-3015	40.777145	-111.945849	Texas	Brazoria	MIDDLE SCALE	SPM	Source Oriented
50-007-0007	44.52839	-72.86884	Utah	Salt Lake	NEIGHBORHOOD	SLAMS	Population Exposure
50-021-0002	43.608056	-72.982778	Utah	Salt Lake	NEIGHBORHOOD	SLAMS	General Background
51-036-0002	37.34438	-77.25925	Utah	Salt Lake	NA	SLAMS	General Background
51-059-0030	38.77335	-77.10468	Utah	Salt Lake	NA	SLAMS	Population Exposure
51-071-0007	37.3863	-80.6539	Vermont	Rutland	NEIGHBORHOOD	SLAMS	Population Exposure
51-087-0014	37.55652	-77.40027	Vermont	Chittenden	REGIONAL SCALE	SLAMS	Population Exposure
51-161-1004	37.28342	-79.88452	Virginia	Giles	NEIGHBORHOOD	INDUSTRIAL	Source Oriented; Highest Concentration
51-165-0003	38.47753	-78.81952	Virginia	Charles	NEIGHBORHOOD	SLAMS	Population Exposure; Highest Concentration
51-650-0008	37.103733	-76.387017	Virginia	Fairfax	NEIGHBORHOOD	SLAMS	Population Exposure
51-710-0024	36.85555	-76.30135	Virginia	Roanoke	URBAN SCALE	SLAMS	Population Exposure
53-007-0012	47.334444	-120.095556	Virginia	Hampton City	NEIGHBORHOOD	SLAMS	Population Exposure
53-009-	48.29786	-124.62491	Virginia	Henrico	NEIGHBORHOOD	SLAMS	Population Exposure

0013							
53-033-0080	47.568236	-122.308628	Virginia	Rockingham	URBAN SCALE	SLAMS	Population Exposure
53-057-0011	48.52059	-122.61428	Virginia	Norfolk City	NEIGHBORHOOD	SLAMS	Population Exposure
53-073-0013	48.855274	-122.7047	Washington	Whatcom	MICROSCALE	SLAMS	Source Oriented
53-073-0017	48.848065	-122.688888	Washington	Whatcom	MICROSCALE	SLAMS	Source Oriented
54-009-0005	40.341023	-80.596635	Washington	King	URBAN SCALE	SLAMS	General Background
54-009-0007	40.389655	-80.586235	Washington	Skagit	NEIGHBORHOOD	SLAMS	Population Exposure
54-009-0011	40.394651	-80.611813	Washington	Clallam	REGIONAL SCALE	SLAMS	General Background
54-029-0007	40.460138	-80.576567	Washington	Chelan	MICROSCALE	SLAMS	Source Oriented
54-029-0009	40.427372	-80.592318	West Virginia	Mason	NEIGHBORHOOD	SLAMS	Source Oriented
54-029-0015	40.618353	-80.540616	West Virginia	Brooke	NEIGHBORHOOD	SLAMS	Population Exposure
54-039-0020	38.346258	-81.621161	West Virginia	Brooke	NEIGHBORHOOD	SLAMS	Population Exposure
54-051-1002	39.915961	-80.733858	West Virginia	Brooke	NEIGHBORHOOD	SLAMS	Population Exposure
54-053-0001	38.95649	-82.08866	West Virginia	Hancock	URBAN SCALE	SLAMS	Population Exposure
54-061-0003	39.649444	-79.920278	West Virginia	Hancock	URBAN SCALE	SLAMS	Population Exposure
54-107-1002	39.323533	-81.552367	West Virginia	Wood	URBAN SCALE	SLAMS	Population Exposure
55-009-0005	44.50729	-87.99344	West Virginia	Hancock	URBAN SCALE	SLAMS	Population Exposure
55-025-0041	43.10101	-89.35768	West Virginia	Monongalia	URBAN SCALE	SLAMS	Population Exposure
55-027-	43.46611	-88.62111	West Virginia	Marshall	URBAN SCALE	SLAMS	Population Exposure

0001							
55-041-0007	45.56498	-88.80859	West Virginia	Kanawha	URBAN SCALE	SLAMS	Population Exposure
55-079-0068	43.09456	-87.90144	Wisconsin	Outagamie	NEIGHBORHOOD	INDUSTRIAL	Highest Concentration
55-085-0996	45.6451	-89.41848	Wisconsin	Oneida	NEIGHBORHOOD	SLAMS	Source Oriented; Highest Concentration
55-087-0015	44.2893	-88.25219	Wisconsin	Brown	NEIGHBORHOOD	SLAMS	Population Exposure
56-001-0011	41.32417	-105.61489	Wisconsin	Milwaukee	NEIGHBORHOOD	SLAMS	Population Exposure
56-007-0008	41.78237	-107.12083	Wisconsin	Dodge	URBAN SCALE	SLAMS	General Background
56-007-0009	41.79358	-107.08422	Wisconsin	Dane	NEIGHBORHOOD	SLAMS	Population Exposure
56-007-0010	41.77882	-107.10909	Wisconsin	Forest	URBAN SCALE	TRIBAL	General Background
56-013-0003	43.27106	-107.60017	Wyoming	Fremont	NEIGHBORHOOD	INDUSTRIAL	Highest Concentration
56-013-0004	43.02421	-108.3637	Wyoming	Carbon	NEIGHBORHOOD	INDUSTRIAL	Highest Concentration
56-021-0004	41.08536	-104.52277	Wyoming	Natrona	URBAN SCALE	INDUSTRIAL	General Background
56-021-0100	41.182227	-104.778334	Wyoming	Sweetwater	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
56-023-0004	41.783083	-110.53788	Wyoming	Sweetwater	URBAN SCALE	SPM	Source Oriented
56-025-2601	42.8608	-106.23586	Wyoming	Carbon	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
56-037-0012	41.584957	-109.769957	Wyoming	Carbon	NEIGHBORHOOD	INDUSTRIAL	Population Exposure; Source Oriented
56-037-0028	41.593611	-109.71115	Wyoming	Laramie	NEIGHBORHOOD	SLAMS	Population Exposure
56-037-0300	41.750556	-109.788333	Wyoming	Weston	NEIGHBORHOOD	INDUSTRIAL	Source Oriented
56-045-	43.84539	-104.20512	Wyoming	Sweetwater	NEIGHBORHOOD	INDUSTRIAL	Source Oriented

0800							
72-021-0010	18.420089	-66.150615	Wyoming	Lincoln	URBAN SCALE	SPM	Population Exposure
72-033-0004	18.431208	-66.141683	Wyoming	Fremont	URBAN SCALE	SPM	Population Exposure
72-057-0011	17.967309	-66.186149	Wyoming	Albany	URBAN SCALE	SPM	Population Exposure
72-123-0004	17.968352	-66.261365	Wyoming	Laramie	URBAN SCALE	SPM	Population Exposure; Source Oriented