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October 14, 2011

Mr. Donald Dahl  
Air Permits, Toxic and Indoor Air Program Unit  
U.S. EPA Region 1 – New England  
5 Post Office Square  
Mail Code: OEP05-2  
Boston, Massachusetts 02109-3912

**Re: Pioneer Valley Energy Center, Westfield, Massachusetts  
Prevention of Significant Deterioration Air Permit Application  
Supplemental Information - 1 hour NO<sub>2</sub> Impact Analysis  
ESS Project Number E402-007.01**

Dear Mr. Dahl:

On behalf of Pioneer Valley Energy Center, LLC (PVEC), ESS Group Inc. (ESS) is providing the following supplemental information to the U.S. Environmental Protection Agency (EPA) regarding the above referenced application in response to your recent information request.

### **1-HOUR NO<sub>2</sub> AIR QUALITY IMPACT ANALYSIS**

At the request of the EPA, ESS conducted an additional air quality impact analysis for the PVEC project in regard to the newly promulgated 1-hour nitrogen dioxide (NO<sub>2</sub>) National Ambient Air Quality Standard (NAAQS). The results of the analysis, which have been previously provided to the EPA, demonstrated that the modeled maximum ambient air impacts from the PVEC project, as determined in accordance with the most recent EPA 1-hour NO<sub>2</sub> modeling guidance, will not cause or contribute to an exceedance of the 1-hour NO<sub>2</sub> NAAQS.

### **CUMULATIVE IMPACT ASSESSMENT**

The results of the 1-hour NO<sub>2</sub> air quality impact analysis conducted for PVEC determined that the maximum predicted 1-hour NO<sub>2</sub> impacts from the facility would exceed the 1-hour NO<sub>2</sub> Significant Impact Level (SIL) established by the EPA (7.5 µg/m<sup>3</sup>). The Prevention of Significant Deterioration (PSD) Rules (40 CFR 52.21) require that a cumulative impact analysis be conducted for a proposed source for any pollutant for which the maximum predicted impact from the source exceeds the corresponding SIL. The purpose of the cumulative (multi-source) modeling analysis is to demonstrate that the impacts from the proposed source, in combination with the impacts from other existing sources in the area, will not cause an exceedance of the NAAQS.

40 CFR 51, Appendix W, Section 8.2.3, provides general guidance on determining which sources to include in such a cumulative modeling impact assessment. The EPA published technical memos to provide guidance pertaining specifically to 1-hour NO<sub>2</sub> cumulative impact assessments on June 1, 2010, "Guidance Concerning the Implementation of the 1-hour NO<sub>2</sub> NAAQS for the Prevention of Significant Deterioration Program" and on March 1, 2011, "Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO<sub>2</sub> National Ambient Air Quality Standard".



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The guiding principle for the scope of cumulative impact assessments established in 40 CFR 51, Appendix W, and reinforced in the EPA guidance memos is the importance of professional judgment by the reviewing authority in the identification of the sources to be included in the analysis. According to the March 1, 2011 EPA guidance memo, the factors to be considered in such a determination are very case-specific in nature, and should include the characteristics of the source being permitted, and the local meteorological and topographical factors that determine the spatial and temporal patterns of the source's ambient impacts.

The March 1, 2011 EPA memo also provides additional guidance on how to best combine monitored and modeled contributions to estimate existing background concentrations. It notes that it is important to find the right balance so that the impacts of existing sources are not double counted in the analysis. For example, if several existing sources are located in close proximity to an ambient monitoring station, their combined contribution to the existing background concentration in that area is already being accounted for in the concentrations measured at that monitoring station. If the impacts from those sources were also quantified as part of the cumulative modeling analysis, they would in effect be double counted, thus predicting a cumulative impact concentration which is overly conservative.

The March 1, 2011 EPA memo concluded that the use of a uniform monitored background concentration from a representative monitor represents a level of conservatism that would obviate the need to include any background sources in the cumulative impact modeling analysis if the number of nearby sources which could contribute to the cumulative impact is few and the available ambient monitor would be expected to reflect their cumulative impacts reasonably well or conservatively in relation to the modeled design value and the project emissions. The recommended background concentration to be used for the cumulative impact assessment is the monitored NO<sub>2</sub> design value, or the 98<sup>th</sup> percentile of the annual distribution of daily maximum 1-hour values averaged across the most recent three years of monitored data.

The attached Figures 1 and 2 depict the PVEC facility and the surrounding area, including the locations of the Barnes Airport meteorological data monitoring station, and the ambient NO<sub>2</sub> monitoring stations located in Chicopee and Springfield. It also depicts the locations of all stationary NO<sub>x</sub> emission sources in Hampden County, as identified using the EPA's National Emissions Inventory (NEI) database. The attached Table 1 provides additional information from the NEI database on each emissions source identified on Figures 1 and 2.

Figures 1 and 2 also depict the wind rose for Barnes Airport, which is located approximately 1 mile east of the PVEC site, for the period from 2006 through 2010. As shown on Figures 1 and 2, the predominant wind directions during that time period at Barnes Airport were from the north, south, northeast, northwest, and southwest. Winds from the east or west were uncommon during that time period, with winds from the east occurring less than 2% of the hours during that time period. The average wind speed was approximately 6.7 knots with calm winds measured approximately 6.2% of the time during that time period.

Figure 1 depicts the 1-hour NO<sub>2</sub> Significant Impact Area (SIA) from the PVEC facility during normal operation (no testing of the emergency generator or fire pump), as determined through dispersion modeling. Note that the 1-hour NO<sub>2</sub> SIA depicted on Figure 1 represents the worst-case SIA during normal operation, as it represents the SIA during the combustion turbine operating scenario (ULSD firing) which resulted in the highest 1-hour NO<sub>2</sub> impacts. The SIA will be even more limited during natural gas firing, which will be the normal operating scenario for the facility throughout most of the operating year. Using the ULSD firing operating scenario for this analysis provides an additional level of conservatism and confidence in the conclusions resulting from the analysis.

Figure 2 depicts the PVEC 1-hour NO<sub>2</sub> SIA during the same normal operating scenario depicted on Figure 1 along with the additional emissions from the emergency generator or fire pump during readiness testing, limited to the period between the hours of 12 PM and 3 PM. PVEC will accept a permit provision to limit testing of the emergency generator and fire pump to that time period. Note that the emergency generator and fire pump will each be tested for nominally one hour per week, so the SIA depicted on Figure 2 will be limited to a period of up to 104 hours per year only. The total operating hours of the emergency generator and fire pump will each be limited to 300 hours per year.

As shown on Figure 1, the 1-hour NO<sub>2</sub> SIA during normal facility operation is located exclusively to the west of the facility, within an area 5-10 kilometers (km) from the site. There are no stationary sources of NO<sub>x</sub> identified in the NEI database that are located within the PVEC 1-hour NO<sub>2</sub> SIA during normal operation. There are a few isolated stationary NO<sub>x</sub> sources located near the SIA. However, none of these sources are major sources of NO<sub>x</sub> emissions (>50 tpy), and most of them have annual NO<sub>x</sub> emissions of 1 tpy or less. The emissions from these few small sources would not reasonably be expected to interact with the emissions from PVEC or make a significant contribution to a cumulative 1-hour NO<sub>2</sub> impact in combination with the emissions from PVEC based on the relative magnitude of their NO<sub>x</sub> emissions to the PVEC emissions and their locations relative to the prevailing winds and topography in the area.

As shown on Figure 2, the 1-hour NO<sub>2</sub> SIA during engine testing also includes much of the area within 5 km of the site, and extends to the southeast up to 10 km. There are several stationary sources of NO<sub>x</sub> identified in the NEI database that are located within or near the PVEC 1-hour NO<sub>2</sub> SIA during engine testing. However, none of these sources are major sources of NO<sub>x</sub> emissions (>50 tpy), and most of them have annual NO<sub>x</sub> emissions of 1 tpy or less. The emissions from these few small sources would not reasonably be expected to interact with the emissions from PVEC or make a significant contribution to a cumulative 1-hour NO<sub>2</sub> impact in combination with the emissions from PVEC based on the relative magnitude of their NO<sub>x</sub> emissions to the PVEC emissions and their locations relative to the prevailing winds and topography in the area.

As shown on both Figures 1 and 2, the vast majority of the stationary NO<sub>x</sub> sources identified in the NEI database in the project area are located to the east of the PVEC site in Holyoke, Chicopee, and Springfield. None of these sources are located within the PVEC 1-hour NO<sub>2</sub> SIA during normal operation or during engine testing. As mentioned previously, the Barnes Airport wind rose shows that the winds in

the area rarely blow from the east or west, so it is reasonable to assume that there will be infrequent interaction between the emissions from PVEC and the emissions from the facilities to the east of the site. The fact that the PVEC 1-hour NO<sub>2</sub> SIA is located predominately to the west of the site indicates that the intervening topography between the site and Chicopee, Holyoke, and Springfield will also serve to limit interaction between the emissions from PVEC and the sources to the east of the site.

As mentioned previously, Figures 1 and 2 also show the locations of the NO<sub>2</sub> ambient monitoring stations in Chicopee and Springfield. These ambient monitoring stations are located in close proximity to the vast majority of the stationary NO<sub>x</sub> sources in Hampden County that are identified in the NEI database. It is therefore reasonable to expect that the NO<sub>2</sub> ambient concentrations measured at these monitoring stations are already adequately quantifying the cumulative 1-hour NO<sub>2</sub> impacts from these sources, as well as mobile sources in the area. If the impacts from any of these sources located in proximity to either monitoring station were to be included in a cumulative impact assessment for PVEC, those impacts would in effect be double counted (modeling and monitoring), and would result in a cumulative impact which is overly conservative.

In summary, PVEC has demonstrated that the maximum predicted 1-hour NO<sub>2</sub> impacts from the facility, when combined with the monitored NO<sub>2</sub> design value of the most conservative background NO<sub>2</sub> monitor in the area (Springfield), will not cause an exceedance of the NAAQS. Although the maximum predicted 1-hour NO<sub>2</sub> impacts from PVEC exceed the SIL in limited areas, there are no sources located within those areas or in close proximity which could reasonably be expected to interact significantly with the PVEC emissions. Furthermore there are NO<sub>2</sub> monitors located within the area which already sufficiently quantify the cumulative impacts from the vast majority of the existing stationary and mobile NO<sub>x</sub> sources in the area. Therefore, consistent with the latest EPA guidance, PVEC asserts that no further cumulative impact assessment for 1-hour NO<sub>2</sub> is required.

#### **ENVIRONMENTAL JUSTICE ASSESSMENT**

ESS also performed an Environmental Justice (EJ) assessment for PVEC as it pertains to 1-hour NO<sub>2</sub> ambient air impacts using the policy guidance and framework of the "Toolkit for Assessing Potential Allegations of Environmental Injustice" published by the U.S. EPA. The purpose of this assessment was to demonstrate that the 1-hour NO<sub>2</sub> impacts from PVEC will not create disproportionate adverse impacts within any EJ communities.

Consistent with EPA methods and procedures, several communities in the vicinity of the PVEC site were identified for the EJ assessment. These Affected Areas or Areas-of-Concern communities met the following criteria:

- The community's minority population percentage is above the statewide minority population percentage. As a percent of the total population, the statewide minority population is 15.5%;  
or



- The community's percentage of population below the poverty level exceeds the statewide average population percentage below the poverty level. As a percent of the total population, approximately 6.7% of the total population lives below the poverty level in the Commonwealth of Massachusetts.

Figures 1 and 2 (attached) show the predicted PVEC 1-hour NO<sub>2</sub> SIA as isopleths around the site boundary during normal operation and during standby engine testing, respectively. As shown in the figures, there are several Affected Areas or Areas-of-Concern located within 20 km of the Project site. The EJ areas close to the PVEC site include areas within Westfield, Holyoke, Chicopee, and Springfield.

As shown on Figure 1, the 1-hour NO<sub>2</sub> SIA from PVEC during normal operation does not include any EJ areas. In other words, the 1-hour NO<sub>2</sub> impacts from PVEC in all EJ areas during normal operation will be insignificant, as defined by the EPA. As a result, the 1-hour NO<sub>2</sub> ambient air impacts from the PVEC facility will clearly not disproportionately impact EJ areas during normal operation.

As shown on Figure 2, the 1-hour NO<sub>2</sub> SIA from PVEC during standby engine testing, which will be limited to the period from 12 PM – 3 PM and occur only two hours per week (one hour per engine), includes two separate EJ areas within Westfield (1.8 total square miles impacted) and a small EJ area located in West Springfield (0.1 square miles impacted). The 1-hour NO<sub>2</sub> impacts from PVEC in the remaining EJ communities in the area during standby engine readiness testing will be insignificant, as defined by the EPA. Approximately 2.3% of the total area of the PVEC 1-hour NO<sub>2</sub> SIA during standby engine testing is located within an EJ community. With nearly 98% of the PVEC 1-hour NO<sub>2</sub> impacts above the SIL occurring outside of EJ areas, the 1-hour NO<sub>2</sub> ambient air impacts from the PVEC facility will clearly not disproportionately impact EJ areas during standby engine testing.

Figures 1 and 2 graphically demonstrate that the maximum predicted 1-hour NO<sub>2</sub> air quality impacts from the PVEC facility will not create disproportionate adverse impacts in any EJ Affected Areas or Areas-of-Concern.

We trust that the above information is a complete response to your request for additional information. The modeling files associated with the analyses described in this submittal and the SIA isopleth shape files have been provided electronically on the enclosed CD-ROM. Please feel free to contact me by phone at (781) 419-7749 or via e-mail at [mfeinblatt@essgroup.com](mailto:mfeinblatt@essgroup.com) if you have any questions.

Sincerely,

**ESS GROUP, INC.**

A handwritten signature in blue ink, appearing to read "M. Feinblatt".

Michael E. Feinblatt  
Practice Leader  
Energy & Industrial Services



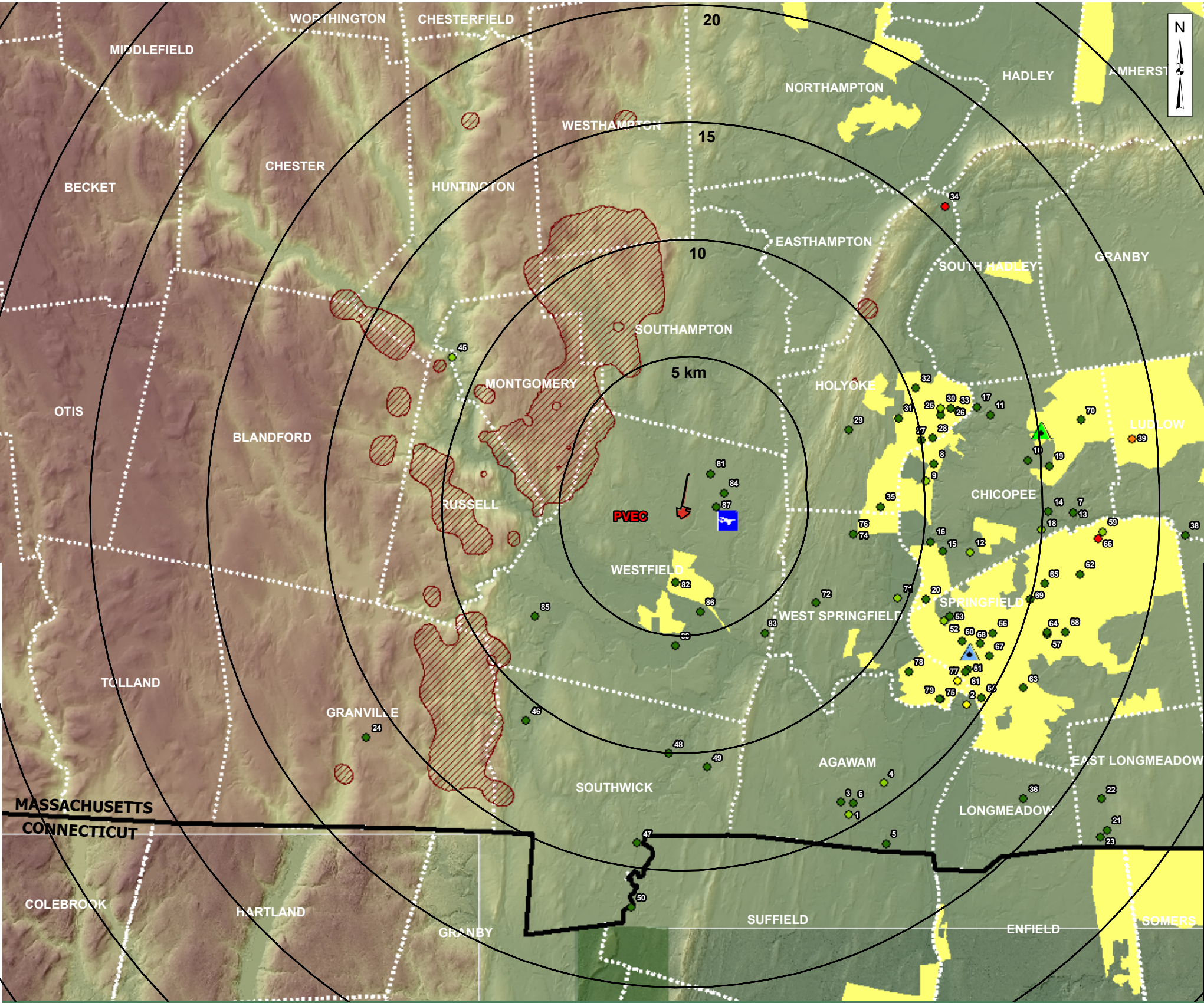
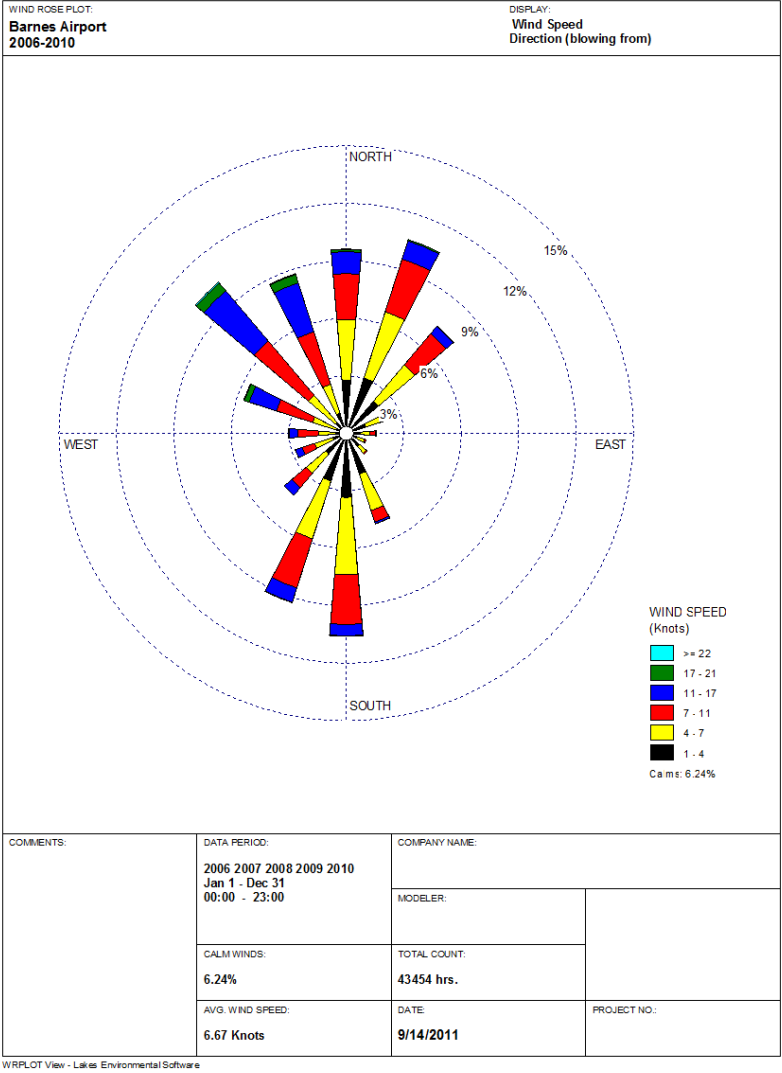
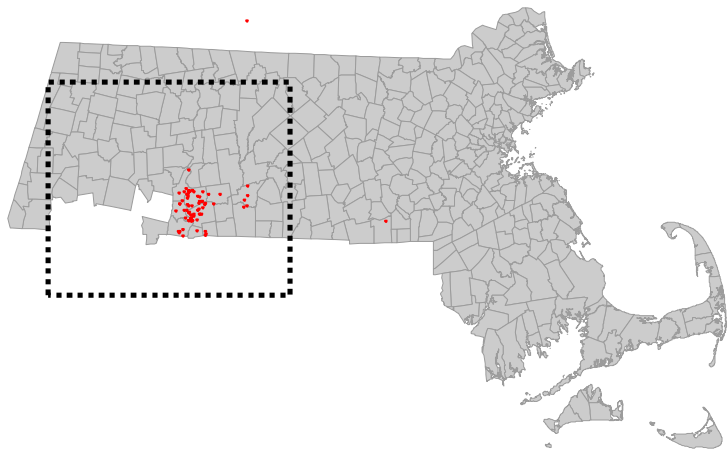
Attachments

C: Matthew Palmer, PVEC  
Jack Arruda, PVEC

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**PIONEER VALLEY ENERGY CENTER**  
Westfield, Massachusetts

Scale: 1" = 3 Miles

Source: 1) MassGIS, DEM Data, 2001 2) ESS, PVEC Air Model Data, 2011  
3) MassGIS, Town Boundaries, 2002 4) MassGIS, EJ Areas, 2003  
5) EPA, NO2 Ambient Monitor Locations, 2011

**Legend**

- 5km Buffer Interval from PVEC Site Boundary
- PVEC Site Boundary
- Chicopee Ambient NO<sub>2</sub> Monitor
- Springfield Ambient NO<sub>2</sub> Monitor
- Barnes Airport Meteorological Data Monitoring Station
- PVEC Modeled 1 hour NO<sub>2</sub> Impact >7.5 ug/m<sup>3</sup> (1-hour NO<sub>2</sub> SIL)
- Environmental Justice Areas

Environmental Justice Areas derived from 2000 Census Block Group (SF3) data for Race and Income. (Minority >15.5%, Poverty < \$30,515)  
- EJ areas impacted by SIA is 0%

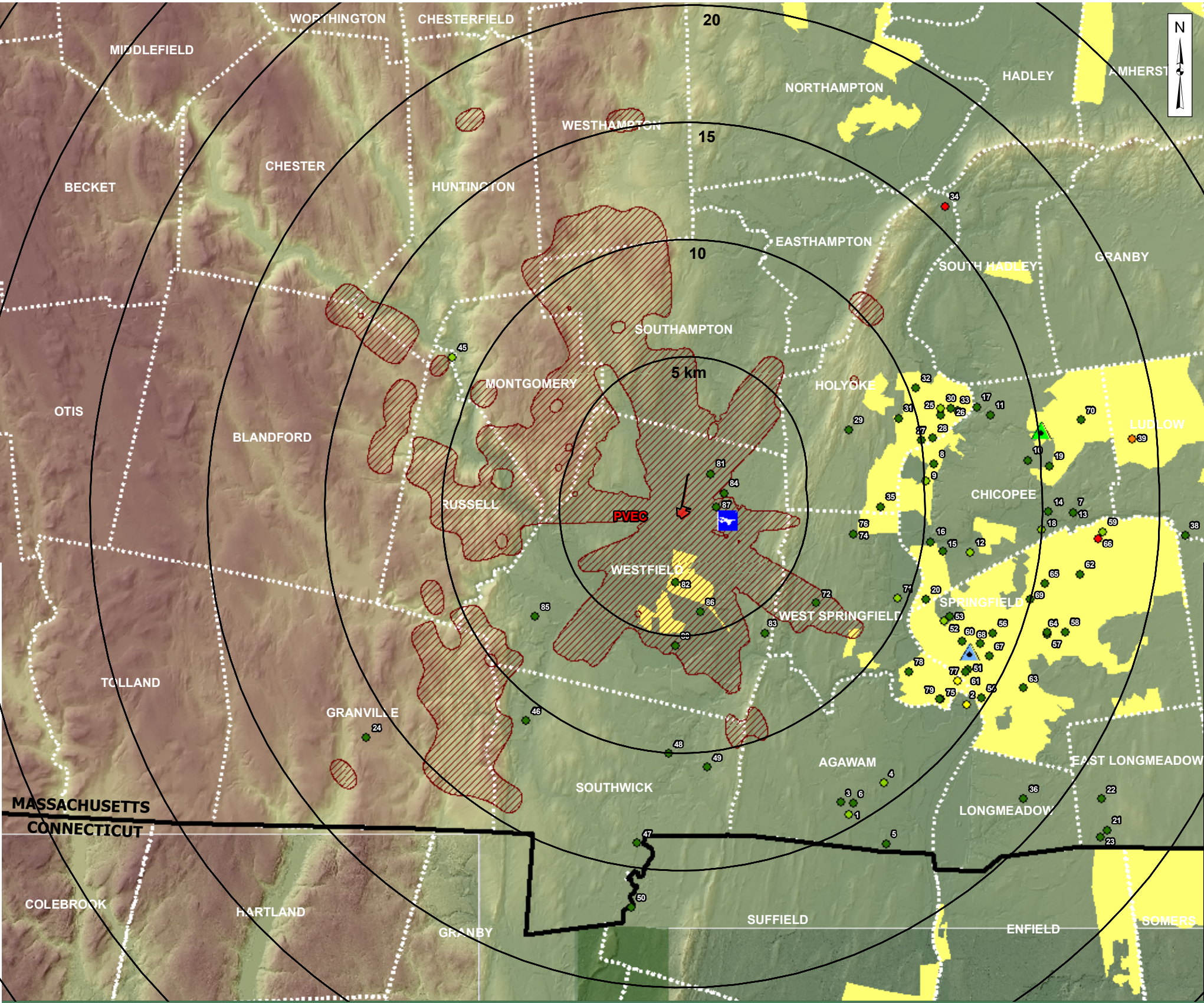
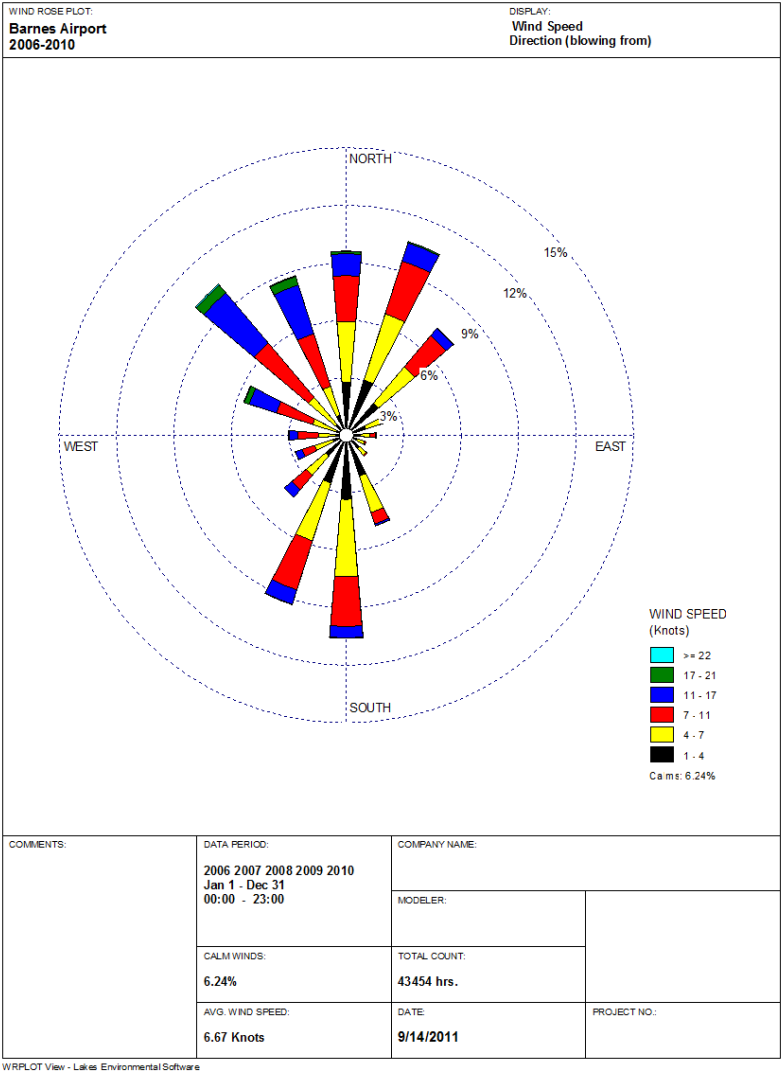
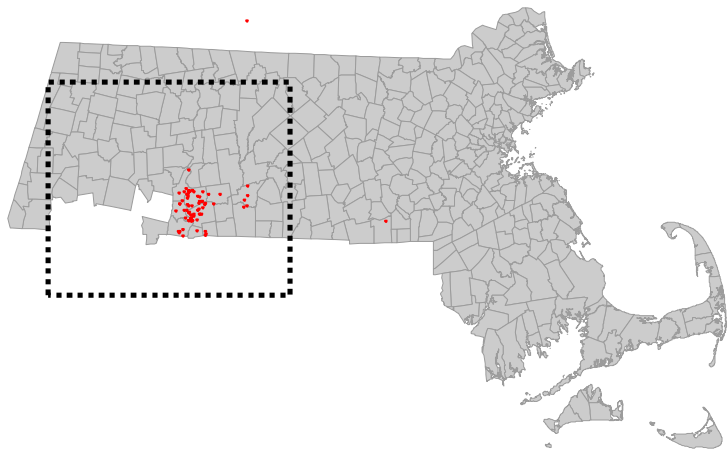
**Hampden County Stationary NOx Sources**  
**NOx Total Emissions (Tons/Year)**

- 0 - 10
- 10 - 50
- 50 - 100
- 100 - 250
- 250+

**PVEC 1-hour NO<sub>2</sub> Modeled Significant Impact Area during Normal Operations (No Standby Engine Testing)**

**Figure 1**





PIONEER VALLEY ENERGY CENTER  
Westfield, Massachusetts

Scale: 1" = 3 Miles  
0 3 Miles

Source: 1) MassGIS, DEM Data, 2001 2) ESS, PVEC Air Model Data, 2011  
3) MassGIS, Town Boundaries, 2002 4) MassGIS, EJ Areas, 2003  
5) EPA, NO2 Ambient Monitor Locations, 2011

Legend

- 5km Buffer Interval from PVEC Site Boundary
- PVEC Site Boundary
- Chicopee Ambient NO<sub>2</sub> Monitor
- Springfield Ambient NO<sub>2</sub> Monitor

- Barnes Airport Meteorological Data Monitoring Station
- PVEC Modeled 1 hour NO<sub>2</sub> Impact >7.5 ug/m<sup>3</sup> (1-hour NO<sub>2</sub> SIL)
- Environmental Justice Areas  
Environmental Justice (EJ) areas derived from 2000 Census Block Group (SF3) data for Race and Income. (Minority >15.5%, Poverty < \$30,515)  
- EJ areas impacted by SIA is 2.3%  
- City of Westfield EJ areas impacted by SIL is 1.8 sq. miles  
- Town of West Springfield EJ areas impacted by SIL is 0.1 sq. miles

Hampden County Stationary NOx Sources  
NOx Total Emissions (Tons/Year)

- 0 - 10
- 10 - 50
- 50 - 100
- 100 - 250
- 250+

PVEC 1-hour NO<sub>2</sub>  
Modeled Significant  
Impact Area during  
Standby Engine Testing  
(Limited to noon - 3PM)

Figure 2



Table 1 - Hampden County Stationary NOx Sources (NEI Database)

ID	Site	LOCALITY	LOCATION ADDRESS TEXT	NAICS_CODE	Source_Type	Pollutant	Total_Emissions	Emissions_UOM	FACILITY_COMPANY_NAME	FAC_SITE_DESCRIPTION	NAICS_CD	FACILITY_SOURCE_DESCRIPTION	LATITUDE	LONGITUDE
1	BERKSHIRE POWER LLC	AGAWAM	36 MOYLAN LN	221112	Electricity Generation via Combustion	NOX	48.894 TON	TON	BERKSHIRE POWER LLC	THE FACILITY IS A GAS FIRED GAS TURBINE COMBINED CYCLE ELECTRIC GENERATING MERCHANT PLANT.	221112	Electricity Generation via Combustion	42.045522	-72.591088
2	COVANTA SPRINGFIELD LLC	AGAWAM	200 M ST	562213	Municipal Waste Combustor	NOX	6.24 TON	TON	COVANTA SPRINGFIELD LLC	COMBUSTION OF MUNICIPAL SOLID WASTE (MSW) TO PRODUCE STEAM, WHICH IN TURN FEEDS A TURBINE GENERATOR	221112	Municipal Waste Combustor	42.088414	-72.591451
3	SPRINGFIELD WASTEWATER TREATMENT PLANT	AGAWAM	M ST	221320	Wastewater Treatment Facility	NOX	4.1029 TON	TON	SPRINGFIELD WATER AND SEWER	MUNICIPAL WASTEWATER TREATMENT FACILITY	221320	Wastewater Treatment Facility	42.05012	-72.656731
4	ABERDEESSE GAS PIPELINE STATION 261	AGAWAM	14615 SUFFIELD ST	480403	Pipeline compressor station	NOX	13.8748 TON	TON	SPRINGFIELD WATER AND SEWER	ABERDEESSE GAS PIPELINE OPERATES A NATURAL GAS COMPRESSOR STATION IN AGAWAM, MA. THIS COMPRESSOR STA	480403	Pipeline compressor station	42.033686	-72.637173
5	TGP	AGAWAM	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.0345	-72.632
6	VERGNANI	AGAWAM	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.0488	-72.6493
7	AMERESCO HERCULES ENERGY INC	CHICOPEE	101 NEW LOMBARD RD	562212	Electricity Generation via Combustion	NOX	34.12 TON	TON	AMERESCO CHICOPEE ENERGY LLC	THE FACILITY IS LANDFILL GAS-TO-ENERGY PLANT LOCATED ON THE CHICOPEE LANDFILL ON NEW LOMBARD ROAD IN	562212	Electricity Generation via Combustion	42.162321	-72.577786
8	ASHLAND HERCULES WATER TECHNOLOGIES	CHICOPEE	1111 GRATTAN ST	325211	Water Treatment and Distribution	NOX	1.562 TON	TON	HERCULES INC	POLYMER PRODUCTION- CHEMICAL REACTION TO PRODUCE THE INTERMEDIATE THAT IS USED TO MAKE THE WET-S	325211	Water Treatment and Distribution	42.180654	-72.607446
9	CALLAWAY GOLF BALL OPERATIONS INC	CHICOPEE	425 MEADOW ST	339920	Golf Course Maintenance	NOX	10.8322 TON	TON	CALLAWAY GOLF COMPANY	GOLF BALL MANUFACTURING	339920	Golf Course Maintenance	42.174431	-72.613612
10	CHICOPEE	CHICOPEE	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.1826	-72.5815
11	CHICOPEE CONCRETE SV	CHICOPEE	158 NEW LOMBARD RD	327999	Concrete Manufacturing	NOX	0.056 TON	TON	CHICOPEE CONCRETE SERVICES INC	THIS FACILITY PRODUCES READY MIX CONCRETE BY LOADING TRANSIT MIX TRUCKS WITH SAND, STONE, CEMENT AND	327999	Concrete Manufacturing	42.199867	-72.581165
12	CHICOPEE ELECTRIC LIGHT CO	CHICOPEE	725 FRONT ST	221112	Electricity Generation via Combustion	NOX	13.2813 TON	TON	CHICOPEE MUNICIPAL LIGHT PLANT	CHICOPEE ELECTRIC LIGHT COMPANY IS A MUNICIPALLY OWNED AND OPERATED UTILITY SUPPLYING POWER TO THE C	221112	Electricity Generation via Combustion	42.148209	-72.590433
13	CHICOPEE SANITARY LANDFILL	CHICOPEE	161 NEW LOMBARD RD	562212	Landfill	NOX	8.234 TON	TON	CT VALLEY SANITARY WASTE DISPOSAL INC	FACILITY IS A SOLID WASTE LANDFILL. THE LANDFILL PRODUCES LANDFILL GAS ANAEROBICALLY CONSISTING OF M	562212	Landfill	42.162321	-72.577786
14	DOW JONES	CHICOPEE	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.1629	-72.5504
15	EASTERN ETCHING AND MANUFACTURING	CHICOPEE	35 LOWER GRAPE ST	332812	Etching and Engraving	NOX	0.2565 TON	TON	EASTERN ETCHING AND MANUFACTURING	THIS FACILITY PRODUCES IDENTIFICATION PRODUCTS. NO CHANGES IN PAST REPORTING YEAR.	332812	Etching and Engraving	42.147233	-72.604953
16	GAS RECOVERY SYSTEMS LLC - CHICOPEE	CHICOPEE	855 BURNETT RD	221119	Electricity Generation via Combustion	NOX	4.02 TON	TON	RENEWABLE POWER - LANDFILL GAS TO ENERGY FACILITY	RENEWABLE POWER - LANDFILL GAS TO ENERGY FACILITY	221119	Electricity Generation via Combustion	42.150959	-72.610884
17	SOUTH HADLEY WWTP	CHICOPEE	2 JAMES ST	924110	Wastewater Treatment Facility	NOX	0.3534 TON	TON	TOWN OF SOUTH HADLEY	POTW - SANITARY WASTEWATER TREATMENT FACILITY SERVING THE TOWN OF SOUTH HADLEY, AND SMALL PORTIONS O	924110	Wastewater Treatment Facility	42.202719	-72.588233
18	TED ONDRICK COMPANY LLC	CHICOPEE	56 INDUSTRIAL RD	324211	Hot Mix Asphalt Plant	NOX	15.8832 TON	TON	TED ONDRICK COMPANY LLC	BATCH MIX HOT MIX ASPHALT PLANT	324211	Hot Mix Asphalt Plant	42.156059	-72.550787
19	US TSUBAKI INC. AUTOMOTIVE DIVISION	CHICOPEE	108 LONGMEADOW DR	333613	Drive Shaft Manufacturing	NOX	0.5 TON	TON	US TSUBAKI INC. AUTOMOTIVE DIVISION	DRIVE TRANSPOWER TRANSMISSION EQUIPMENT	333613	Drive Shaft Manufacturing	42.190556	-72.550333
20	WOMENS CORRECTIONAL CENTER	CHICOPEE	701 CENTER ST	922140	Correctional Institution	NOX	0.619 TON	TON	WOMENS CORRECTIONAL INSTITUTION	WOMENS CORRECTIONAL INSTITUTION	922140	Correctional Institution	42.128487	-72.612919
21	HASBRO GAMES	CHICOPEE	443 SHAKER RD	339932	Toy Manufacturing	NOX	1.8884 TON	TON	HASBRO ELM	PRINTING AND CONVERTING - PUZZLE AND GAME MANUFACTURER	339932	Toy Manufacturing	42.040926	-72.518342
22	LENOX AMERICAN SAW & MANUFACTURING CO.	EAST LONGMEADOW	301 CHESTNUT ST	332213	Saw Mill	NOX	1.4434 TON	TON	AMERICAN SAW AND MFG CO	FABRICATION OF METAL THROUGH ROLLING, GRINDING, MILLING, DRAWING, SIZING, HEAT TREATING, WELDING, CU	332213	Saw Mill	42.052702	-72.521508
23	SUDEKOR LLC	EAST LONGMEADOW	82 DEER PARK DR	322221	Printing	NOX	2.77 TON	TON	SUDEKOR LLC	THE SUDEKOR PLANT IMPREGNATES PRINTED DECORATIVE LAMINATE USED IN THE FABRICATION OF FLOORING IN NO	322221	Printing	42.037931	-72.521525
24	MOREHAVEN	GRANVILLE	Unknown	48811	Airport	NOX	0.0027425 TON	TON	ADHESIVE APPLICATIONS - DIELECTRIC POLYMERS, INC.	DIELECTRIC POLYMERS OPERATES A TWO STATION, REVERSE ROLL, SUBSTRATE COATER, THE PAPER AND POLYMERIC F	48811	Airport	42.02723	-72.9001
25	ADHESIVE APPLICATIONS INC	HOLYOKE	218 RACE ST	322222	Adhesive Manufacturing	NOX	0.3913 TON	TON	ADHESIVE APPLICATIONS INC	ADHESIVE POLYMERS OPERATES A TWO STATION, REVERSE ROLL, SUBSTRATE COATER, THE PAPER AND POLYMERIC F	322222	Adhesive Manufacturing	42.11995	-72.666613
26	HAMPDEN PAPERS INC	HOLYOKE	100 WATER ST	322221	Paper Mill	NOX	0.6849 TON	TON	HAMPDEN PAPERS INC	SPECIALTY PAPER PRODUCTS	322221	Paper Mill	42.202099	-72.60167
27	HAZEN PAPER CO	HOLYOKE	717 MAIN ST	322222	Paper Mill	NOX	0.047 TON	TON	HAZEN PAPER CO	FACILITY HAS A PERMIT TO INSTALL AN EXTRUDER/COATER. THIS MACHINE HAS NOT BEEN INSTALLED, SO THE ONL	322222	Paper Mill	42.19804	-72.616667
28	HAZEN PAPER COMPANY	HOLYOKE	240 SOUTH WATER ST	322222	Paper Mill	NOX	2.0248 TON	TON	HAZEN PAPER CO	FACILITY CONSISTS OF 3 ROTOGRAVURE PRINTERS AND 4 LAMINATORS/COATERS. THE FACILITY PRODUCES PRINTED/	322222	Paper Mill	42.190576	-72.616667
29	HOLYOKE COMMUNITY COLLEGE	HOLYOKE	303 HOMESTEAD AVE	611210	Institutional - schools, hospitals, prisons	NOX	1.7081 TON	TON	HOLYOKE COMMUNITY COLLEGE	COMMUNITY COLLEGE	611210	Institutional - schools, hospitals, prisons	42.193277	-72.640709
30	HOLYOKE GAS & ELECTRIC DEPARTMENT	HOLYOKE	102 CABOT ST	221112	Electricity Generation via Combustion	NOX	1.143 TON	TON	HOLYOKE GAS AND ELECTRIC DEPT	THIS FACILITY PRODUCES STEAM FOR HEATING AND INDUSTRIAL PROCESSES. THE FACILITY ACTS AS A PEAKING PL	221112	Electricity Generation via Combustion	42.2022	-72.605511
31	HOLYOKE MEDICAL CENTER	HOLYOKE	570 WASHINGTON ST	622110	Institutional - schools, hospitals, prisons	NOX	6.292 TON	TON	HOLYOKE MEDICAL CENTER	STEAM USED IN THE FACILITY	622110	Institutional - schools, hospitals, prisons	42.198163	-72.61813
32	HOLYOKE WWTP PLANT	HOLYOKE	1 BERKSHIRE ST	221320	Wastewater Treatment Facility	NOX	0.6530 TON	TON	HOLYOKE WASTEWATER TREATMENT PLANT	MUNICIPAL WASTEWATER TREATMENT PLANT, AVERAGE FLOW 8 MGD, UTILIZES PURE OXYGEN ACTIVATED SLUDGE PROC	221320	Wastewater Treatment Facility	42.209676	-72.609654
33	LAMINATED	HOLYOKE	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.2015	-72.5981
34	MT TOM GENERATING COMPANY LLC	HOLYOKE	200 NORTH HAMPTON ST	221112	Electricity Generation via Combustion	NOX	591.34 TON	TON	MT. TOM GENERATING COMPANY, LLC	THIS FACILITY GENERATES ELECTRICITY WITH A SINGLE-UNIT, PULVERIZED BITUMINOUS COAL, DRY BOTTOM BOI	221112	Electricity Generation via Combustion	42.278637	-72.605032
35	PROVIDENCE HOSPITAL	HOLYOKE	1233 MAIN ST	622110	Institutional - schools, hospitals, prisons	NOX	1.4693 TON	TON	PROVIDENCE HOSPITAL	THIS FACILITY IS A BEHAVIORAL HEALTH CLINIC. THE CLINIC OPERATES TWO DUAL FRIE BOILERS TO HEAT THE	622110	Institutional - schools, hospitals, prisons	42.164108	-72.6237
36	LONGMEADOW HIGH SCHOOL	LONGMEADOW	95 GRASSY CUTTER RD	611110	Institutional - schools, hospitals, prisons	NOX	0.9505 TON	TON	LONGMEADOW HIGH SCHOOL	SCHOOL BUILDING FOR GRADES 9 - 12	611110	Institutional - schools, hospitals, prisons	42.026266	-72.561386
37	LEWLOW INDUSTRIAL REALTIES	LUDLOW	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.14501	-72.56201
38	LUDLOW INDUSTRIAL REALTIES	LUDLOW	1 STATE ST	221330	Wastewater Treatment Facility	NOX	6.298 TON	TON	LUDLOW INDUSTRIAL REALTIES	THESE BOILERS ARE USED TO HEAT OUR BUILDINGS	221330	Wastewater Treatment Facility	42.154462	-72.480021
39	MASS MANUFACTURING	LUDLOW	221112	Electricity Generation via Combustion	NOX	128.4768 TON	TON	MASS MANUFACTURING	530 MW (GROSS) POWER PLANT CONSISTING OF 5 COMBUSTION TURBINES, 1 STEAM TURBINE, 2 AUXILIARY BOILERS	221112	Electricity Generation via Combustion	42.507626	-72.567026	
40	POLYMER INJECTION MOLDING	MONSON	96 PALMER RD	328199	Polymer Injection Molding	NOX	0.079 TON	TON	POLYMER INJECTION MOLDING	PRODUCTION OF POLYMER PARTS	328199	Polymer Injection Molding	42.144771	-72.803654
41	CHURCHILL COATINGS	PALMER	103 WATER ST	423310	Coating, Enamel, and Ink Manufacturing	NOX	0.0875 TON	TON	CHURCHILL COATINGS CORP	PRE-STAIN, PRIME, AND PAINT SIDING AND TRIM BOARDS OF VARIOUS BUILDING MATERIALS SUCH AS WOOD, CEMEN	423310	Coating, Enamel, and Ink Manufacturing	42.186659	-72.311638
42	MA MONSON DEVELOPMENTAL CENTER	PALMER	173 STATE AVE	622210	Institutional - schools, hospitals, prisons	NOX	49.35 TON	TON	MA MONSON DEVELOPMENTAL CENTER	STEAM IS PRODUCED BY BURNING FUEL OIL IN HIGH PRESSURE BOILERS	622210	Institutional - schools, hospitals, prisons	42.16905	-72.326913
43	Monopoli	PALMER	Unknown	48811	Airport	NOX	0.274382013 TON	TON	RATHBONE PRECISION METALS INC	COLD ROLLING AND COLD DRAWING OF METAL SHAPES	48811	Airport	42.23339	-72.31139
44	RATHBONE PRECISION METALS	PALMER	1241 PARK ST	331221	Metal Rolling and Drawing	NOX	1.523 TON	TON	RATHBONE PRECISION METALS INC	COLD ROLLING AND COLD DRAWING OF METAL SHAPES	331221	Metal Rolling and Drawing	42.148902	-72.314448
45	TEXON USA	RUSSELL	1190 HUNTINGTON RD	321330	Pulp and Paper Plant	NOX	19.107 TON	TON	TEXON USA	PAPER COATING	321330	Pulp and Paper Plant	42.18902	-72.859592
46	CANNIZZARO FIELD	SOUTHWICK	Unknown	48811	Airport	NOX	0.0002925 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.0798	-72.8181
47	CONGAMOND LAKE	SOUTHWICK	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.0334	-72.7598
48	MONARCH PLACE	SOUTHWICK	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.0679	-72.7445
49	SCIBELLI	SOUTHWICK	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.0629	-72.7245
50	SOUTH POND	SOUTHWICK	Unknown	48811	Airport	NOX	0.0027425 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.0087	-72.7628
51	ATT SPRINGFIELD	SPRINGFIELD	351 BRIDGE ST	517110	Telephone Exchange	NOX	0.2 TON	TON	ATT SPRINGFIELD	NOTHING IS PRODUCED. EMERGENCY POWER FOR TELECOMMUNICATIONS	517110	Telephone Exchange	42.101911	-72.59304
52	BAYSTATE MEDICAL CENTER	SPRINGFIELD	759 CHESTNUT ST	622110	Institutional - schools, hospitals, prisons	NOX	15.3295 TON	TON	BAYSTATE MEDICAL CENTER	GENERAL MEDICAL AND SURGICAL HOSPITALS	622110	Institutional - schools, hospitals, prisons	42.120187	-72.603553
53	BAYSTATE MEDICAL CTR	SPRINGFIELD	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.1122	-72.6009
54	BROAD STREET	SPRINGFIELD	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.0909	-72.5837
55	CARANDU	SPRINGFIELD	20 CARANDU DR	311615	Food Processing	NOX	2.8934 TON	TON	FARMILAND FOODS - CARANDU, INC	PRODUCTION OF PROCESSED MEATS AND SAUSAGES	311615	Food Processing	42.837	-72.5312
56	EXXON MOBIL OIL CORPORATION	SPRINGFIELD	145 ALBANY ST	424710	Bulk Terminals/Bulk Plants	NOX	0.1162 TON	TON	EXXONMOBIL OIL CORP	PETROLEUM DISTRIBUTION TERMINAL	424710	Bulk Terminals/Bulk Plants	42.116054	-72.578308
57	MASS MUTUAL INSURANCE	SPRINGFIELD	1295 STATE ST	524126	Insurance	NOX	5.5913 TON	TON	MASS MUTUAL LIFE INSURANCE CO	STEAM FOR HEAT AND HOT WATER IN THE FACILITY.	524126	Insurance	42.115464	-72.550511
58	MASS. MUTUAL	SPRINGFIELD	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.1168	-72.5412
59	MASSPOWER	SPRINGFIELD	759 WORCESTER ST	221112	Electricity Generation via Combustion	NOX	35.4719 TON	TON	MASSPOWER	MASSPOWER IS A COMBINED CYCLE COGEN POWER PLANT. NOMINAL RATING OF 240 MW. IT INCLUDES TWO 87 MW (	221112	Electricity Generation via Combustion	42.155384	-72.522345
60	MERCY MEDICAL CENTER	SPRINGFIELD	271 CAREW ST	622110	Institutional - schools, hospitals, prisons	NOX	5.9172 TON	TON	MERCY MEDICAL CENTER	MERCY MEDICAL IS A HOSPITAL THAT PROVIDES CARDIAC CARE, MATERNITY SERVICES, CANCER TREATMENT, EMERGE	622110	Institutional - schools, hospitals, prisons	42.112786	-72.594156
61	MONARCH PLACE	SPRINGFIELD	1414 MAIN ST	531120	Hotel	NOX	0.0005 TON	TON	PICKENLY FAMILY LIMITED PARTNERSHIP	26 STORY OFFICE BUILDING AND 325 ROOM SHERATON HOTEL	531120	Hotel	42.101037	-72.592182
62	NATIONAL METAL FINISHING CORP	SPRINGFIELD	175 PROGRESS AVE	332813	Metal Finishing	NOX	1.68 TON	TON	NATIONAL METAL FINISHING CORP	COMPANY PROVIDES PLATING AND POLISHING SERVICES FOR METAL PRODUCTS. THE COMPANY USES ELECTROCHEMICA	332813	Metal Finishing	42.138938	-72.533757
63	POLY METAL FINISHING	SPRINGFIELD	1 ALLEN ST	332813	Metal Finishing	NOX	0.9457 TON	TON	POLY METAL FINISHING	METAL ANODIZING, INCLUDING: SULFURIC ANODIZING, COLOR ANODIZING, CHROMIC, HARDCOAT, POLYLUBE PROCESS	332813	Metal Finishing	42.095	-72.582182
64	PUTNAM VOCATIONAL HIGH SCHOOL	SPRINGFIELD	1300 STATE ST	611110	Institutional - schools, hospitals, prisons	NOX	0.8896 TON	TON	PUTNAM VOCATIONAL TECHNICAL HIGH SCHOOL	PUBLIC HIGH SCHOOL	611110	Institutional - schools, hospitals, prisons	42.116364	-72.550477
65	SMITH & WESSON CORP	SPRINGFIELD	2100 ROOSEVELT AVE	332994	Gun Manufacturing	NOX	7.2785 TON	TON	SMITH & WESSON HOLDING COMPANY	SMALL ARMS MANUFACTURER	332994	Gun Manufacturing	42.15312	-72.552667
66	SOLITA INCORPORATED	SPRINGFIELD	750 WORCESTER ST	328113	Textile Mill	NOX	398.3979 TON	TON	SOLITA INC	MAIN PRODUCT IS PVB PLASTIC SHEETING. FACILITY INCLUDES RESINS PRODUCTION, ADHESIVES PRODUCTION, AND	328113	Textile Mill	42.152737	-72.548869
67	SPRINGFIELD TECHNICAL COLLEGE	SPRINGFIELD	1 ARMORY SQ	611210	Institutional - schools, hospitals, prisons	NOX	3.3 TON	TON	SPRINGFIELD TECHNICAL COMMUNITY COLLEGE	INSTITUTION FOR HIGHER LEARNING	611210	Institutional - schools, hospitals, prisons	42.107891	-72.579859
68	SPRINT COMMUNICATIONS	SPRINGFIELD	400 TAYLOR ST	517210	Telephone Exchange	NOX	0.0351 TON	TON	SPRINT COMMUNICATIONS COMPANY	COMMUNICATIONS FACILITY - LONG DISTANCE SWITCHING OPERATION	517210	Telephone Exchange	42.111863	-72.584522
69	TITELFLEX CORPORATION	SPRINGFIELD	2 PRINGFIELD ST	336220	Textile Mill	NOX	2.9848 TON	TON	TITELFLEX CORP	EXTRUSION OF TEFLOX CONVE	336220	Textile Mill	42.129168	-72.569661
70	Westover AirMetropolis	Springfield/Chicopee	Unknown	48811	Airport	NOX	4.244649966 TON	TON	AGRI MARK INC	RAW MLK IS CONVERTED INTO A FAMILY OF DAIRY PRODUCTS THROUGH A SERIES OF UNIT OPERATIONS INCLUDING	48811	Airport	42.19826	-72.53426
71	AGRI MARK INC	WEST SPRINGFIELD	958 RIVERDALE ST	311514	Dairy Processing	NOX	13.5228 TON	TON	AGRI MARK INC	RAW MLK IS CONVERTED INTO A FAMILY OF DAIRY PRODUCTS THROUGH A SERIES OF UNIT OPERATIONS INCLUDING	311514	Dairy Processing	42.128788	-72.627425
72	BEAR HOLE	WEST SPRINGFIELD	Unknown	48811	Airport	NOX	0.01623888 TON	TON	HERCULES INC	HERCULES	48811	Airport	42.1265	-72.6665
73	CYALUME TECHNOLOGIES INC	WEST SPRINGFIELD	96 WINDSOR ST	339932	Toy Manufacturing	NOX	0.9101 TON	TON	CYALUME TECHNOLOGIES	PRODUCTION OF CHEMILUMINESCENT DEVICES	339932			