APPENDIX E

Monitor Centric Modeling Files

List of files included in this appendix:

Monitor Centric Runs

Potential and New Limited Emissions Scenario

- AERMOD-All-NAA-Sources-PTEs-Ameren-Limits-Monitor-Fine-Grid-08-10.inp
- 01H4ALLMONFINEGRID-NAA-PTEs-AmLimits08-10.PLT

Actual and Hourly Emissions Scenario

- AERMOD-All-Sources-Actuals-Hourly-Monitor-Fine-Grid-08-10-11-13Emis.inp
- 01H4ALLMONFINEGRID-Allsource-Am11-13CEMS.PLT

Doe Run Herculaneum 2011 Actual Emissions Baseline Scenario

-AERMOD-Herc-11-Fugitive-Monitor-Grid-08-10.inp
- 01H4ALLMONFINEGRID-HERC-11-FUGITIVE.PLT

Monitor Centric Runs:

Potential and New Limited Emissions Scenario

Scenario with all nonattainment area sources at allowable emission rates, the three Ameren plants at the modeled rate used to set limits contained in 10 CSR 10-6.261, and all interactive sources outside the NAA at actual emissions. This scenario and the two other scenarios in this section employ a monitor centric fine resolution receptor grid with 50 m spacing; the grid is 1.25 km X 1.25 km, a plot of the receptor grid is included in the plan text. The same meteorological data as the overall attainment demonstration scenario, 2008-2010 Herculaneum onsite data, is used in this and all the following scenarios.

An excerpt of the input file is included below. Only a portion of the receptors are included for brevity. Full input/output files are available in digital format upon request.

```
**Exploratory Modeling
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE MOTT ST MONITOR Fine Grid RUN WITH Potentials for all sources in the NAA and actuals for
sources outside NAA and modeled limits for Ameren 3 plants not including Herc. 08-10 Herc Onsite Met
**Excluding Herc Emissions as they have shutdown as of 1/1/2014  Running with Small Monitor focused grid (50
m spacing) to determine limits required for monitor to be in compliance
**2010-SO2-NAA-3B 1-Hr Jefferson County NAA Revised 12/8/14 AK
   MODELOPT DFAULT CONC
   AVERTIME 1
   POLLUTID SO2
   RUNORNOT RUN
   ERRORFIL JeffersonCountyNAA.err
CO FINISHED
```

```
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
**NAA SOURCES
SO LOCATION RUSH1 Point 739918.06  4223889.95 125.27
SO LOCATION RUSH2 Point 739922.42  4223893.92 125.27
SO LOCATION RUSH3 Point 739890.00  4224000.00 125.27

**NAA SOURCES
SO LOCATION  RC4K09  POINT  733110.42  4229152.675  149.97
SO LOCATION  RC6F19  POINT  733450.45  4229244.88  129.92
SO LOCATION  BRECK8  POINT  727679.896  4231875.566  134.36
SO LOCATION  BRECK15  POINT  727679.896  4231875.566  134.36
SO LOCATION  UNIM3  POINT  722160.096  4238054.6  172.32
SO LOCATION  DOW18  POINT  727729.079  4240744.022  132.74
**SO LOCATION  DOW57  VOLUME  727729.079  4240744.022  132.74 -Taken out as its emergency equip
SO LOCATION  DOW27C  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW27D  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW58A  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW58B  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW58C  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW58D  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW58E  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW58F  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW65  POINT  727729.079  4240744.022  132.74
SO LOCATION  JMH1  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH2  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH3  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH4  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH5  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH6  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH7  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH8  VOLUME 728217.057  4230828.77  142.4
SO LOCATION  JMH9  POINT  728217.057  4230828.77  142.4
**SO LOCATION  JMH10  POINT  728217.057  4230828.77  142.4
**SO LOCATION  JMH11  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH12  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH13  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH14  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH15  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH16  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH17  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH18  VOLUME  728217.057  4230828.77  142.4
**SO LOCATION  JMH19  VOLUME  728217.057  4230828.77  142.4
**SO LOCATION  JMH20  VOLUME  728217.057  4230828.77  142.4
```

```
**SO LOCATION  JMH21  VOLUME  728217.057  4230828.77  142.4
**SO LOCATION  JMH22  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  STGOB4  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB5  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB13  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB15  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB17  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB18  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB21  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB22  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB40  POINT   726819.998  4241850.691  163.38
SO LOCATION  SHBRO2  VOLUME  728323.07  4234714.834  184.64
SO LOCATION  CC8A  POINT  726896.532  4241982.427  149.04
SO LOCATION  CC8B  POINT  726896.532  4241982.427  149.04
SO LOCATION  CC19  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  CC21A  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  CC29B  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  CC32  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  CC44  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  CC44B  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  FW3  POINT  728528.504  4231662.434  122.43
SO LOCATION  FW2  POINT  728528.504  4231662.434  122.43
SO LOCATION  MCI2  POINT  720841.988  4249604.2  191.33
SO LOCATION  MCI1  POINT  720841.988  4249604.2  191.33
SO LOCATION  FWT2  POINT  725705.619  4241094.372  200.33
SO LOCATION  FWT6  POINT  725705.619  4241094.372  200.33
SO LOCATION  ACS1  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS2  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS3  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS4  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS5  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS6  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS9  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS10  POINT  724479.424  4236856.27  132.87
SO LOCATION  AMCS11  POINT  724866.247  4236812.124  126.31
SO LOCATION  PC4A  POINT  720055.11  4248898.08  208.52
SO LOCATION  PC7A  VOLUME  720055.11  4248898.08  208.52
SO LOCATION  JCCS1  VOLUME  727903.717  4240040.388  147.75

**SO LOCATION  Herc33   POINT  729534.2   4237964.4  131.25
**SO LOCATION  Herc20B  POINT  729534.2   4237964.4  131.25
**SO LOCATION  Herc39   POINT  729534.2   4237964.4  131.25
**SO LOCATION  Herc40   POINT  729534.2   4237964.4  131.25
**SO LOCATION  Herc199  VOLUME  729534.2  4237964.4  131.25  closed operation

**BUFFER SOURCES
SO LOCATION  MERMC1  POINT  732714.14  4253776.27  127.47
SO LOCATION  MERMC2  POINT  732675.11  4253783.41  127.71
SO LOCATION  MERMC3  POINT  732626.15  4253790.07  127.96
```

```
SO LOCATION  MERMC4  POINT  732582.63  4253799.56  128.13
SO LOCATION  MERMC6  POINT  732424.79  4253983.91  127.4
SO LOCATION  MERMC62  POINT  732398.53  4253978.78  127.4
SO LOCATION  HOLC1  POINT  740330.799 4221466.101  125.85
SO LOCATION  HOLC2  POINT  740330.79  4221466.101  126.45
SO LOCATION  HOLC3  POINT  740330.79  4221466.101  126.45
SO LOCATION  HOLC4  POINT  740330.79  4221840.42  129.1
SO LOCATION  HOLC5  POINT  740330.79  4221840.42  129.1
SO LOCATION  LABADIE1  POINT  688352.17  4270445.59  149.54
SO LOCATION  LABADIE2  POINT  688387.01  4270400.40  149.54
SO LOCATION  LABADIE3  POINT  688435.47  4270332.33  149.02
SO LOCATION  LABADIE4  POINT  688439.28  4270327.43  149.06
SO LOCATION  AB1  POINT  742779.50  4275725.49  148.31
**SO LOCATION  AB5C  POINT  742799.92  4275763.25  148.25 Inactive per facility
SO LOCATION  AB7B  POINT  743027.943  4275660.608  140.54
SO LOCATION  AB8B  POINT  742759.07  4275690.82  148.43
SO LOCATION  AB9B  POINT  742759.07  4275690.82  148.43
SO LOCATION  AB381  POINT  743027.943  4275660.608  140.54
**IL Sources
SO LOCATION  DMG1  POINT  775385.01  4233237.9  132.84
SO LOCATION  DMG2  POINT  775385.01  4233237.9  132.84
SO LOCATION  DMG5  POINT  775385.01  4233237.9  132.84
SO LOCATION  DMG13  POINT  775385.01  4233237.9  132.84
SO LOCATION  GECC4  POINT  749616  4287035  126.5
SO LOCATION  GECC6  POINT  749616  4287035  126.5
SO LOCATION  GECC7  POINT  749616  4287035  126.5
SO LOCATION  GECC10  POINT  749616  4287035  126.5
SO LOCATION  GECC11  POINT  749616  4287035  126.5
SO LOCATION  GECC12  POINT  749616  4287035  126.5
SO LOCATION  GECC13  POINT  749616  4287035  126.5
SO LOCATION  GECC14  POINT  749616  4287035  126.5
SO LOCATION  GECC15  POINT  749616  4287035  126.5
SO LOCATION  GECC16  POINT  749616  4287035  126.5
SO LOCATION  GECC17  POINT  749616  4287035  126.5
SO LOCATION  GECC18  POINT  749616  4287035  126.5
SO LOCATION  GECC19  POINT  749616  4287035  126.5
SO LOCATION  GECC20  POINT  749616  4287035  126.5
SO LOCATION  GECC21  POINT  749616  4287035  126.5
SO LOCATION  USS7  POINT  748063  4286987  128.6
SO LOCATION  USS8  POINT  748063  4286987  128.6
SO LOCATION  USS10  POINT  748063  4286987  128.6
SO LOCATION  USS11  POINT  748063  4286987  128.6
SO LOCATION  USS12  POINT  748063  4286987  128.6
SO LOCATION  USS13  POINT  748063  4286987  128.6
SO LOCATION  USS20  POINT  748063  4286987  128.6
SO LOCATION  USS47  POINT  748063  4286987  128.6
SO LOCATION  USS53  POINT  748063  4286987  128.6
SO LOCATION  USS54  POINT  748063  4286987  128.6
SO LOCATION  USS59  POINT  748063  4286987  128.6
```

```
SO LOCATION  USS64  POINT  748063  4286987  128.6
SO LOCATION  USS69  POINT  748063  4286987  128.6
SO LOCATION  USS71  POINT  748063  4286987  128.6
SO LOCATION  USS90  POINT  748063  4286987  128.6
SO LOCATION  USS92  POINT  748063  4286987  128.6
SO LOCATION  USS97  POINT  748063  4286987  128.6
SO LOCATION  USS126  POINT  748063  4286987  128.6
SO LOCATION  USS131  POINT  748063  4286987  128.6
SO LOCATION  USS149  POINT  748063  4286987  128.6
SO LOCATION  USS150  POINT  748063  4286987  128.6
SO LOCATION  USS175  POINT  748063  4286987  128.6
SO LOCATION  USS177  POINT  748063  4286987  128.6
SO LOCATION  USS179  POINT  748063  4286987  128.6
SO LOCATION  USS181  POINT  748063  4286987  128.6
SO LOCATION  USS195  POINT  748063  4286987  128.6
SO LOCATION  USS218  POINT  748063  4286987  128.6
SO LOCATION  USS219  POINT  748063  4286987  128.6
SO LOCATION  USS241  POINT  748063  4286987  128.6
SO LOCATION  USS244  POINT  748063  4286987  128.6
SO LOCATION  USS245  POINT  748063  4286987  128.6
SO LOCATION  USS246  POINT  748063  4286987  128.6
SO LOCATION  USS250  POINT  748063  4286987  128.6
SO LOCATION  USS259  POINT  748063  4286987  128.6
SO LOCATION  USS260  POINT  748063  4286987  128.6
SO LOCATION  USS261  POINT  748063  4286987  128.6
SO LOCATION  USS262  POINT  748063  4286987  128.6
SO LOCATION  USS263  POINT  748063  4286987  128.6
SO LOCATION  USS265  POINT  748063  4286987  128.6

**NAA SOURCES
**Rush Island modeled at GEP stack height when using PTEs
**Rush Modeled Rate (basis for 24hr block limit) and below that are commented pte values 11/26/2014 AK
SO SRCPARAM  RUSH1  919.779  204.97  428.72  33.02  6.31
SO SRCPARAM  RUSH2  919.779  204.97  436.111  32.97  6.31
**PTEs
**SO SRCPARAM  RUSH1  1716.157765  204.97  428.72  33.02  6.31
**SO SRCPARAM  RUSH2  1716.157765  204.97  436.111  32.97  6.31
SO SRCPARAM  RUSH3  8.82  84.58  577.594  10.06  1.52

SO SRCPARAM  RC4K09  26.84  124.968  476.93  16.44  5.7912
SO SRCPARAM  RC6F19  0.0025  38.1  369.0759  4.88696  2.0066
SO SRCPARAM  BRECK8  0.00018144  6.096  422.0388889  5.08  0.4573
SO SRCPARAM  BRECK15  0  6.096  422.0388889  0.01  0.4573
SO SRCPARAM  UNIM3  0.0201  9.144  322.0388889  23.70836  1.8288
SO SRCPARAM  DOW18  0.000640627  15.8496  399.8166667  3.2512  0.6096
**SO SRCPARAM  DOW57  0.091  5  1.1628  4.651  -Taken out as its emergency equip
SO SRCPARAM  DOW65  0.00006048  4.572  838.15  45.63  0.0762
SO SRCPARAM  DOW27C  0.0003024  5  1.1628  4.651
SO SRCPARAM  DOW27D  0.0003024  5  1.1628  4.651
```

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SO SRCPARAM  DOW58A  0.0002268  5  1.1628  4.651
SO SRCPARAM  DOW58B  0.0001512  5  1.1628  4.651
SO SRCPARAM  DOW58C  0.00006804  5  1.1628  4.651
SO SRCPARAM  DOW58D  0.00006804  5  1.1628  4.651
SO SRCPARAM  DOW58E  0.0000529  5  1.1628  4.651
SO SRCPARAM  DOW58F  0.0000378  5  1.1628  4.651
SO SRCPARAM  JMH1  0.000604  11.8872  394.2611111  0.01524  0.658368
SO SRCPARAM  JMH2  0.000604  12.8016  435.9277778  0.02032  0.57912
SO SRCPARAM  JMH3  0.000756  4.2672  473.15  0.01  0.5334
SO SRCPARAM  JMH4  0.000756  4.2672  473.15  0.01  0.5334
SO SRCPARAM  JMH5  0.0001512  11.8872  394.2611111  0.01524  0.658368
SO SRCPARAM  JMH6  0.0001512  11.8872  394.2611111  0.01524  0.658368
SO SRCPARAM  JMH7  3.77906E-05  5  1.1628  4.651
SO SRCPARAM  JMH8  3.77906E-05  5  1.1628  4.651
SO SRCPARAM  JMH9  0.0205  8.23  1255.37  0.2545  0.457
**SO SRCPARAM  JMH10  0.16207  1.52  733.15  10.3124  0.1524  -Em Gen
**SO SRCPARAM  JMH11  0.055  3.04  733.15  4.48  0.1524       -Em Gen
SO SRCPARAM  JMH12  1.14882E-05  5  1.1628  4.651
SO SRCPARAM  JMH13  0.000226744  5  1.1628  4.651
SO SRCPARAM  JMH14  0.000498836  5  1.1628  4.651
SO SRCPARAM  JMH15  0.000861627  5  1.1628  4.651
SO SRCPARAM  JMH16  1.51163E-05  5  1.1628  4.651
SO SRCPARAM  JMH17  6.199E-05  5  1.1628  4.651
SO SRCPARAM  JMH18  5.29069E-05  5  1.1628  4.651
**SO SRCPARAM  JMH19  0.115  5  1.1628  4.651 -Em Gen
**SO SRCPARAM  JMH20  0.265  5  1.1628  4.651 -Em Gen
**SO SRCPARAM  JMH21  0.265  5  1.1628  4.651 -Em Gen
**SO SRCPARAM  JMH22  0.215  5  1.1628  4.651 -Em Gen
SO SRCPARAM  STGOB4  0.000589534  5  1.1628  4.651
SO SRCPARAM  STGOB5  0.000861627  5  1.1628  4.651
SO SRCPARAM  STGOB13  0.000111482  5  1.1628  4.651
SO SRCPARAM  STGOB15  0.000177843  5  1.1628  4.651
SO SRCPARAM  STGOB17  0.00049279  5  1.1628  4.651
SO SRCPARAM  STGOB18  0.001150725  5  1.1628  4.651
SO SRCPARAM  STGOB21  0.000370499  5  1.1628  4.651
SO SRCPARAM  STGOB22  0.000866993  5  1.1628  4.651
SO SRCPARAM  STGOB40  3.41  47.88 595  12  1.78
**Updated unit EF Below at ULSD
**SO SRCPARAM  SHBRO2  0.654  5  1.1628  4.651
SO SRCPARAM  SHBRO2  0.00194  5  1.1628  4.651
SO SRCPARAM  CC8A  0.01338  0.762  349.8166667  14.1732  0.6096
SO SRCPARAM  CC8B  0.00014364  0.762  349.8166667  14.1732  0.6096
SO SRCPARAM  CC19  0.000633446  5  1.1628  4.651
SO SRCPARAM  CC21A  0.00756  5  1.1628  4.651
SO SRCPARAM  CC29B  0.000766621  5  1.1628  4.651
SO SRCPARAM  CC32  0.003855401  5  1.1628  4.651
SO SRCPARAM  CC44  0.000144  5  1.1628  4.651
SO SRCPARAM  CC44B  0.00013608  5  1.1628  4.651
SO SRCPARAM  FW3  0.5629  6.09  783.15  11.684  0.253963415
```

```
SO SRCPARAM  FW2  0.07711  12.8  383.15  28.0162  0.90304878
SO SRCPARAM  MCI2  0.0001738  10.67  394.2611111  9.7  0.609756098
SO SRCPARAM  MCI1  0.0001134  4.57  255.3722222  0.01  0.457317073
SO SRCPARAM  FWT2  0.0748  14.02  383.15  11.23188  1.307926829
SO SRCPARAM  FWT6  0.2483  3.96  660.9277778  11.176  0.253963415
SO SRCPARAM  ACS1  0.05355  8.53  1040.372222  5.70992  0.609756098
SO SRCPARAM  ACS2  0.007875  5.48  1007.594444  7.8232  0.304878049
SO SRCPARAM  ACS3  0.023625  9.14  1059.816667  6.8326  0.609756098
SO SRCPARAM  ACS4  0.05355  8.53  1040.372222  5.70992  0.609756098
SO SRCPARAM  ACS5  0.05355  8.53  1040.372222  5.70992  0.609756098
SO SRCPARAM  ACS6  0.0126  5.48  1003.705556  4.97332  0.304878049
SO SRCPARAM  ACS9  0.0236  9.14  1059.816667  6.8326  0.609756098
SO SRCPARAM  ACS10  0.007875  5.48  1007.594444  7.8232  0.304878049
SO SRCPARAM  AMCS11  0.0315  8.23  1037.038889  5.7912  0.914634146
**SO SRCPARAM  PC4A  2.11  6.09  394.2611111  15.0114  1.524390244
**Updated EF for unit below from AP42
SO SRCPARAM  PC4A  0.415  6.09  394.2611111  15.0114  1.524390244
**SO SRCPARAM  PC7A  0.388  5  1.1628  4.651
**Updated EF for unit below at ULSD
SO SRCPARAM  PC7A  0.00000582  5  1.1628  4.651
**SO SRCPARAM  JCCS1  0.09022  5  1.1628  4.651
**Updated PTE from CP2003-10-066 0.39 tpy SO2
SO SRCPARAM  JCCS1  0.011  5  1.1628  4.651
**SO SRCPARAM  Herc33   0.00108  9.45  453.705  9.936  0.914634
**SO SRCPARAM  Herc20B  0.16300  9.14  287.038  6.431  0.304878
**SO SRCPARAM  Herc39   0.0003628  16.76  453.705  9.936  1.2195
**SO SRCPARAM  Herc40   0.0003628  16.76  453.705  9.936  1.2195
**SO LOCATION  Herc199  729534.2  4237964.4  131.25  closed operation

**BUFFER SOURCES
**Modeled Rate (basis for 24hr block limit) 11/26/2014 AK
SO SRCPARAM  MERMC1  157.49  76.2  419.7055556  30.975808  3.3528
SO SRCPARAM  MERMC2  157.49  76.2  434.4833333  30.214316  3.3528
SO SRCPARAM  MERMC3  327.59  106.68  462.0944444  41.270428  4.2672
SO SRCPARAM  MERMC4  377.99  106.68  446.2055556  37.57676  4.8768
**SO SRCPARAM  MERMC6  0.33683433  9.7536  838.7055556  31.63824  3.6576
SO SRCPARAM  MERMC6  56.7  9.7536  838.7055556  31.63824  3.6576
SO SRCPARAM  MERMC62 42.3  8.99  838.71  20.97  4.75

**Holcim at actuals below
SO SRCPARAM  HOLC1  8.23  158.4655  369.15  16.002  5.5992
SO SRCPARAM  HOLC2  0.79  158.4655  361.15  11.94816  2.3592
SO SRCPARAM  HOLC3  0.79  158.4655  361.15  11.94816  2.3592
SO SRCPARAM  HOLC4  0.379  87.4776  373.15  16.61  2.11836
SO SRCPARAM  HOLC5  0.379  87.4776  373.15  16.61  2.11836

**Modeled Rate (basis for 24hr block limit) 11/26/2014 AK
SO SRCPARAM  LABADIE1 1360.77  213.36  443.0648912  34.72064305  6.2484
SO SRCPARAM  LABADIE2 1360.77 213.36  442.4920016  35.55833613  6.2484
```

```
SO SRCPARAM  LABADIE3 1360.77  213.36  433.2043723  34.51691769  6.2484
SO SRCPARAM  LABADIE4 1360.77  213.36  441.7078451  34.94594478  6.2484

** using actual biogas and coal emissions reported for 2013 AB boilers only as of 08/12/14
SO SRCPARAM  AB1  48.9490517 68.58  438.7055556  6.46684  3.048
SO SRCPARAM  AB7B  0.00094  30.48  449.8166667  18.62836  0.9144
SO SRCPARAM  AB8B  17.7887049  68.58  449.8166667  5.62864  3.048
SO SRCPARAM  AB9B  20.4352057  68.58  449.8166667  5.62864  3.048
SO SRCPARAM  AB381  0.0876800693  6.096  283.15  21.336  0.3048

**IL Sources
SO SRCPARAM  DMG1  210.8729216  184.404  426.4833333  26.79192  5.9436
SO SRCPARAM  DMG2  287.0515468  184.404  423.7055556  26.79192  5.9436
SO SRCPARAM  DMG5  0.00001438  84.1248  552.5944444  16.21536  1.0668
SO SRCPARAM  DMG13  50.4145544  184.404  360.9277778  26.79192  5.9436
SO SRCPARAM  GECC4  0.004314  7.9248  422.0388889  20.75688  1.3716
SO SRCPARAM  GECC6  1.254219574  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC7  0.078630415  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC10  0  22.5552  486.4833333  8.93064  1.152144
SO SRCPARAM  GECC11  1.261775113  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC12  1.254219574  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC13  1.261775113  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC14  1.261775113  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC15  1.261775113  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC16  0.079104092  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC17  0.079104092  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC18  0.078630415  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC19  0.079104092  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC20  0.079104092  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC21  26.5190208  60.96  406.4833333  11.82624  3.9624
SO SRCPARAM  USS7  1.3758784  66.1416  533.15  15.14856  2.1336
SO SRCPARAM  USS8  0.142362  18.288  409.8166667  9.26592  2.31648
SO SRCPARAM  USS10  6.337266  19.2024  338.7055556  19.47672  3.3528
SO SRCPARAM  USS11  5.697356  45.4152  518.7055556  11.94816  1.8288
SO SRCPARAM  USS12  2.4796872  68.58  533.15  18.56232  2.7432
SO SRCPARAM  USS13  0.1860772  18.288  409.8166667  9.26592  2.31648
SO SRCPARAM  USS20  0.0609712  17.3736  616.4833333  4.63296  4.191
SO SRCPARAM  USS47  4.1857304  27.432  449.8166667  4.7244  2.182368
SO SRCPARAM  USS53  0  68.58  460.9277778  4.51104  4.2672
SO SRCPARAM  USS54  0  60.96  460.9277778  3.13944  3.3528
SO SRCPARAM  USS59  1.118764  46.3296  441.4833333  1.18872  2.1336
SO SRCPARAM  USS64  1.0212676  46.3296  441.4833333  10.63752  2.1336
SO SRCPARAM  USS69  0.395059439  5.4864  314.8166667  25.96896  1.2192
SO SRCPARAM  USS71  0.9896316  76.2  529.2611111  4.99872  2.7432
SO SRCPARAM  USS90  0.414731567  5.4864  326.4833333  25.96896  1.2192
SO SRCPARAM  USS92  1.0390988  76.2  475.3722222  4.96824  2.7432
SO SRCPARAM  USS97  0.490358  32.004  408.7055556  7.19328  2.19456
SO SRCPARAM  USS126  0.3169352  3.6576  428.15  9.32688  1.95072
SO SRCPARAM  USS131  0  16.4592  505.3722222  5.6388  0.6096
```

```
SO SRCPARAM  USS149  0.0025884  60.96  455.3722222  10.5156  1.34112
SO SRCPARAM  USS150  0.2303676  19.2024  323.7055556  13.13688  2.1336
SO SRCPARAM  USS175  0.044578  17.3736  616.4833333  4.63296  4.191
SO SRCPARAM  USS177  0.0511928  44.5008  644.2611111  9.81456  3.834384
SO SRCPARAM  USS179  0.026562161  53.0352  376.4833333  6.76656  2.10312
SO SRCPARAM  USS181  0.027884833  53.0352  376.4833333  6.76656  2.10312
SO SRCPARAM  USS195  0.0831164  17.3736  616.4833333  4.63296  4.191
SO SRCPARAM  USS218  0.0046016  16.1544  421.4833333  10.30224  0.9144
SO SRCPARAM  USS219  0  13.1064  414.2611111  5.7912  0.70104
SO SRCPARAM  USS241  5.1443012  49.0728  449.8166667  15.97152  5.4864
SO SRCPARAM  USS244  0  11.8872  413.15  7.07136  0.618744
SO SRCPARAM  USS245  0  11.8872  413.15  7.07136  0.618744
SO SRCPARAM  USS246  0.002876  11.8872  413.15  7.07136  0.618744
SO SRCPARAM  USS250  0  11.2776  500.9277778  9.99744  0.576072
SO SRCPARAM  USS259  0  17.6784  497.5944444  8.41248  1.03632
SO SRCPARAM  USS260  0  17.6784  497.5944444  8.41248  1.03632
SO SRCPARAM  USS261  0  17.6784  497.5944444  8.41248  1.03632
SO SRCPARAM  USS262  0  17.6784  497.5944444  8.41248  1.03632
SO SRCPARAM  USS263  3.5725672  41.7576  500.9277778  18.95856  1.8288
SO SRCPARAM  USS265  5.697356  36.576  533.15  26.76144  2.1336
  BACKGRND ANNUAL 9.0
  BACKUNIT PPB
SO SRCGROUP  MERM  MERMC1  MERMC2  MERMC3  MERMC4  MERMC6  MERMC62
SO SRCGROUP  HOL  HOLC1-HOLC5
SO SRCGROUP  LAB  LABADIE1  LABADIE2  LABADIE3  LABADIE4
SO SRCGROUP  AB  AB1 AB7B AB8B  AB9B  AB381
SO SRCGROUP  CC  CC8A CC8B  CC19 CC21A  CC29B  CC32  CC44  CC44B
SO SRCGROUP  SHBRO  SHBRO2
SO SRCGROUP  STGO  STGOB4  STGOB5  STGOB13  STGOB15  STGOB17 STGOB18 STGOB21 STGOB22
STGOB40
SO SRCGROUP  JMH  JMH1-JMH22
SO SRCGROUP  DOW  DOW18 DOW27C  DOW27D  DOW58A  DOW58B  DOW58C  DOW58D DOW58E
DOW58F DOW65
SO SRCGROUP  UNIM  UNIM3
SO SRCGROUP  FW FW2 FW3
SO SRCGROUP  FWT FWT2 FWT6
SO SRCGROUP  MCI MCI1-MCI2
SO SRCGROUP  ACS ACS1-ACS10
SO SRCGROUP  AMCS  AMCS11
SO SRCGROUP  PC PC4A PC7A
SO SRCGROUP  JCCS JCCS1
SO SRCGROUP  RC  RC4K09  RC6F19
SO SRCGROUP  BRECK BRECK8 BRECK15
SO SRCGROUP  DMG  DMG1  DMG2  DMG5  DMG13
SO SRCGROUP  GECC  GECC4  GECC6  GECC7  GECC10  GECC11  GECC12  GECC13  GECC14 GECC15
GECC16 GECC17 GECC18 GECC19 GECC20 GECC21
SO SRCGROUP  USS  USS7  USS8  USS10  USS11  USS12  USS13  USS20 USS47 USS53 USS54 USS59
USS64 USS69 USS71 USS90 USS97 USS241 USS263 USS265 USS241 USS92 USS259 USS250 USS150
USS245 USS244
```

```
SO SRCGROUP  RUSH  RUSH1  RUSH2  RUSH3
SO SRCGROUP  ALL  BACKGROUND
SO FINISHED

RE STARTING
** AERMAP - VERSION 11103                                10/23/14
**                                          13:08:24
**  JEFFERSON COUNTY COURSE GRID
**
** A total of      13  NED files were used
** A total of     676  receptors were processed
** DOMAINXY 680000 4200000 15 780000 4300000 15
** ANCHORXY  680000 4200000 680000 4200000 15 4
** Terrain heights were extracted by default
```

ONLY PORTION OF RECEPTORS INCLUDED BELOW

```
RE ELEVUNIT METERS
  DISCCART    728550.00   4237600.00    117.48    151.33
  DISCCART    728600.00   4237600.00    117.06    151.33
  DISCCART    728650.00   4237600.00    118.65    151.33
  DISCCART    728700.00   4237600.00    118.44    118.44
  DISCCART    728750.00   4237600.00    117.06    123.22
  DISCCART    728800.00   4237600.00    116.34    123.63
  DISCCART    728850.00   4237600.00    116.05    123.83
  DISCCART    728900.00   4237600.00    115.86    135.75
  DISCCART    728950.00   4237600.00    113.50    135.94
  DISCCART    729000.00   4237600.00    118.72    135.91
  DISCCART    729050.00   4237600.00    134.23    134.47
  DISCCART    729100.00   4237600.00    135.37    135.37
  DISCCART    729150.00   4237600.00    135.38    135.38
  DISCCART    729200.00   4237600.00    135.47    135.47
  DISCCART    729250.00   4237600.00    135.06    135.06
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
  SURFFILE HERCILX-ONSITE-08-10.sfc
  PROFFILE HERCILX-ONSITE-08-10.PFL
  SURFDATA 3960 2008
  UAIRDATA 4833 2008
  SITEDATA 99999 2008
  PROFBASE 126 METERS
ME FINISHED
**
```

```
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 4-20
OU MAXDCONT ALL 4 THRESH 50 MAXDCONT_MONITORFINEGRID-08-10-ALL-PTEs-AmLimits.DAT
OU PLOTFILE 1 ALL 4TH 01H4ALLMONFINEGRID-All-PTEs-AmLimits08-10.PLT
 OU FINISHED
**
****************************************
** Project Parameters
****************************************
** PROJCTN CoordinateSystemUTM
** DESCPTN UTM: Universal Transverse Mercator
** DATUM North American Datum 1983
** DTMRGN CONUS
** UNITS m
** ZONE 15
** ZONEINX 0
**
```

Excerpt of corresponding Plotfile for above input file:

```
* AERMOD ( 14134): MOTT ST MONITOR Fine Grid RUN WITH Potentials for all sources in the     05/19/15
* AERMET ( 14134):                                                                          14:18:12
* MODELING OPTIONS USED:  RegDFAULT CONC      ELEV
*       PLOT FILE OF   4TH-HIGHEST MAX DAILY  1-HR VALUES AVERAGED OVER   3 YEARS FOR
SOURCE GROUP: ALL
*       FOR A TOTAL OF   676 RECEPTORS.
*       FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,A5,5X,A8,2X,10(F13.5,2X,I8.8,2X:))
*       X           Y      AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE     GRP       RANK     NET ID
AVER CONC YR1  DATE YR1  AVER CONC YR2  DATE YR2  AVER CONC YR3  DATE YR3
* ____________  ____________  ____________  ______  ______  ______  ______  ________  ________
_________  _____________  _________  _____________  _________  _____________  _________
  728550.00000 4237600.00000     177.47579   117.48   151.33     0.00    1-HR  ALL        4TH
169.55708  08072507      177.62354  09102008      185.24675  10011812
  728600.00000 4237600.00000     177.81378   117.06   151.33     0.00    1-HR  ALL        4TH
170.20072  08072507      177.80527  09102008      185.43535  10011812
  728650.00000 4237600.00000     178.47311   118.65   151.33     0.00    1-HR  ALL        4TH
171.19244  08072507      178.33107  09102008      185.89581  10011812
  728700.00000 4237600.00000     178.77171   118.44   118.44     0.00    1-HR  ALL        4TH
171.77303  08072507      178.46147  09102008      186.08064  10011812
  728750.00000 4237600.00000     178.81994   117.06   123.22     0.00    1-HR  ALL        4TH
172.06375  08072507      178.31638  09102008      186.07970  10011812
  728800.00000 4237600.00000     178.94672   116.34   123.63     0.00    1-HR  ALL        4TH
172.43161  08072507      178.25197  09102008      186.15657  10011812
```

```
 728850.00000 4237600.00000     179.11028   116.05   123.83     0.00    1-HR  ALL        4TH
172.83019  08072507      178.22304  09102008      186.27762  10011812
 728900.00000 4237600.00000     179.25101   115.86   135.75     0.00    1-HR  ALL        4TH
173.19282  08072507      178.16494  09102008      186.39527  10011812
 728950.00000 4237600.00000     178.96040   113.50   135.94     0.00    1-HR  ALL        4TH
173.06106  08072507      177.63500  09102008      186.18513  10011812
 729000.00000 4237600.00000     179.99702   118.72   135.91     0.00    1-HR  ALL        4TH
174.41000  08072507      178.53657  09102008      187.04449  10011812
 729050.00000 4237600.00000     180.70426   134.23   134.47     0.00    1-HR  ALL        4TH
175.58489  08072507      177.75476  09102008      188.77313  10110710
 729100.00000 4237600.00000     180.76818   135.37   135.37     0.00    1-HR  ALL        4TH
175.57669  08072507      177.27487  09102008      189.45297  10110710
 729150.00000 4237600.00000     181.17368   135.38   135.38     0.00    1-HR  ALL        4TH
176.43880  08123011      176.99196  09102008      190.09028  10110710
 729200.00000 4237600.00000     181.54464   135.47   135.47     0.00    1-HR  ALL        4TH
177.28316  08123011      176.64015  09102008      190.71061  10110710
 729250.00000 4237600.00000     181.91382   135.06   135.06     0.00    1-HR  ALL        4TH
178.09458  08123011      176.34761  09102008      191.29928  10110710
 729300.00000 4237600.00000     182.21078   135.14   135.14     0.00    1-HR  ALL        4TH
178.85678  08123011      175.89505  09102008      191.88052  10110710
 729350.00000 4237600.00000     182.51416   134.59   134.59     0.00    1-HR  ALL        4TH
179.58508  08123011      175.53161  09102008      192.42580  10110710
 729400.00000 4237600.00000     183.02479   130.64   134.61     0.00    1-HR  ALL        4TH
180.32361  08123011      175.89450  09102008      192.85625  10110710
 729450.00000 4237600.00000     183.50124   124.84   134.85     0.00    1-HR  ALL        4TH
181.02295  08123011      176.38487  09102008      193.09590  10110710
 729500.00000 4237600.00000     183.69831   128.06   128.53     0.00    1-HR  ALL        4TH
182.01768  08091117      175.27787  09102008      193.79936  10110710
 729550.00000 4237600.00000     184.86907   124.44   124.44     0.00    1-HR  ALL        4TH
185.61639  08091117      174.98885  09102008      194.00196  10110710
 729600.00000 4237600.00000     184.61588   116.97   128.81     0.00    1-HR  ALL        4TH
187.66601  08091117      172.79965  09102008      193.38198  10110710
 729650.00000 4237600.00000     185.68710   117.00   172.81     0.00    1-HR  ALL        4TH
190.89455  08091117      172.35434  09041910      193.81242  10110710
 729700.00000 4237600.00000     188.03066   120.91   166.79     0.00    1-HR  ALL        4TH
194.75344  08091117      174.56134  09041910      194.77719  10110710
 729750.00000 4237600.00000     190.00544   122.24   173.10     0.00    1-HR  ALL        4TH
198.15753  08091117      176.50487  09041910      195.35392  10110710
 729800.00000 4237600.00000     191.22543   122.12   173.19     0.00    1-HR  ALL        4TH
199.68459  08073108      178.29282  09041910      195.69889  10110710
 728550.00000 4237650.00000     177.40766   117.54   151.33     0.00    1-HR  ALL        4TH
169.71259  08072507      177.51467  09102008      184.99571  10011812
 728600.00000 4237650.00000     177.79721   117.48   151.33     0.00    1-HR  ALL        4TH
170.44329  08072507      177.72738  09102008      185.22095  10011812
 728650.00000 4237650.00000     178.35257   118.56   151.33     0.00    1-HR  ALL        4TH
171.34983  08072507      178.11484  09102008      185.59304  10011812
 728700.00000 4237650.00000     178.73013   118.86   118.86     0.00    1-HR  ALL        4TH
172.04850  08072507      178.30544  09102008      185.83644  10011812
```

```
 728750.00000 4237650.00000     178.86991   118.06   118.06     0.00    1-HR  ALL        4TH
172.47074  08072507      178.23494  09102008      185.90407  10011812
 728800.00000 4237650.00000     178.90274   116.89   116.89     0.00    1-HR  ALL        4TH
172.76234  08072507      178.04456  09102008      185.90132  10011812
 728850.00000 4237650.00000     179.01374   116.38   116.38     0.00    1-HR  ALL        4TH
173.13112  08072507      177.93414  09102008      185.97596  10011812
 728900.00000 4237650.00000     179.11797   116.06   135.75     0.00    1-HR  ALL        4TH
173.48180  08072507      177.81197  09102008      186.06015  10011812
 728950.00000 4237650.00000     178.85561   113.93   135.94     0.00    1-HR  ALL        4TH
173.40882  08072507      177.28968  09102008      185.86832  10011812
 729000.00000 4237650.00000     179.76137   117.91   135.94     0.00    1-HR  ALL        4TH
174.52120  08072507      177.90553  09102008      186.85737  10110710
 729050.00000 4237650.00000     180.67339   133.92   133.92     0.00    1-HR  ALL        4TH
175.92607  08072507      177.31492  09102008      188.77916  10110710
 729100.00000 4237650.00000     180.64139   135.75   135.75     0.00    1-HR  ALL        4TH
175.81941  08123011      176.64709  09102008      189.45767  10110710
 729150.00000 4237650.00000     181.02340   135.76   135.76     0.00    1-HR  ALL        4TH
176.66892  08123011      176.32534  09102008      190.07594  10110710
 729200.00000 4237650.00000     181.50175   135.50   135.50     0.00    1-HR  ALL        4TH
177.48242  08123011      176.01174  09102008      191.01109  10012710
 729250.00000 4237650.00000     181.71241   135.28   135.28     0.00    1-HR  ALL        4TH
178.25397  08123011      175.63870  09102008      191.24455  10110710
 729300.00000 4237650.00000     182.00711   134.95   134.95     0.00    1-HR  ALL        4TH
178.98459  08123011      175.23915  09102008      191.79761  10110710
```

Actual and Hourly Emissions Scenario

Scenario including all sources included in modeled inventory at 2012 reported actual emission rates and three Ameren plants included at most recent three year hourly emissions, (2011-2013 CEMS). Same receptor grid and meteorological data as other monitor centric scenarios. Excerpts of input and plotfiles included below. (As receptor grid is same as previous scenario, did not include for this scenario below)

```
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE SO2 Jefferson NAA Attainment Demo Modeling All Sources at Actuals with Hourly
Actuals (CEMS) for 3 Ameren plants (Using 11-13 CEMS for most recent) with 08-10 Herc ONsite Met
data (Last full 3 yr period available).
**Excluding Herc Emissions as they have shutdown as of 1/1/2014  Revised 12-8-14 AK   Running with
Small Monitor focused grid (50 m spacing) to determine current contributions at monitor
**Project # 2010-SO2-3B 1 hour Jefferson NAA
```

```
  MODELOPT DFAULT CONC
  AVERTIME 1
  POLLUTID SO2
  RUNORNOT RUN
  ERRORFIL JeffersonCountyNAA.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
**Ameren Labadie
**Boiler #1
**
SO LOCATION LABADIE1 Point 688352.17  4270445.59  149.66
SO SRCPARAM LABADIE1 681.056344 213.36 443.0648912  34.72064305  6.2484
SO HOUREMIS .\Att-Demo-All-Source-Hourly-08-10Met-11-13Emis.txt LABADIE1
**Boiler #2
**
SO LOCATION LABADIE2 Point 688387.01  4270400.40  149.66
SO SRCPARAM LABADIE2 537.229763  213.36 442.4920016  35.55833613  6.2484
SO HOUREMIS .\Att-Demo-All-Source-Hourly-08-10Met-11-13Emis.txt LABADIE2
**Boiler #3
**
SO LOCATION LABADIE3 Point 688435.47  4270332.33  149.66
SO SRCPARAM LABADIE3 605.810409 213.36 433.2043723  34.51691769  6.2484
SO HOUREMIS .\Att-Demo-All-Source-Hourly-08-10Met-11-13Emis.txt LABADIE3
**Boiler #4
**
SO LOCATION LABADIE4 Point 688439.28  4270327.43  149.66
SO SRCPARAM LABADIE4 637.788672  213.36 441.7078451  34.94594478  6.2484
SO HOUREMIS .\Att-Demo-All-Source-Hourly-08-10Met-11-13Emis.txt LABADIE4
**Emergency Diesel Generator
**operates 8736 hr per year so it was included. Emission are released through a stack
SO LOCATION LABADIE5 Point 688439.28  4270327.43  149.66
SO SRCPARAM LABADIE5 0.002307653 9.144 866.4833333 7.112 0.3048
**BPIP Outputs Dated January 11, 2012
SO BUILDHGT LABADIE1      78.44  78.44  78.44  78.44  78.44  78.44
SO BUILDHGT LABADIE1      78.44  78.44  78.44  78.44  78.44  78.44
SO BUILDHGT LABADIE1      78.44  25.37  27.71  78.44  78.44  78.44
SO BUILDHGT LABADIE1      78.44  78.44  78.44  78.44  78.44  78.44
SO BUILDHGT LABADIE1      78.44  78.44  78.44  78.44  78.44  78.44
```

```
SO BUILDHGT LABADIE1        78.44   25.37   27.71   78.44   78.44   78.44
SO BUILDWID LABADIE1       195.26  212.09  222.49  226.12  222.88  222.69
SO BUILDWID LABADIE1       220.81  212.22  197.19  176.16  149.79  118.86
SO BUILDWID LABADIE1        84.32   43.39   61.83  112.08  144.48  172.49
SO BUILDWID LABADIE1       195.26  212.09  222.49  226.12  222.88  222.69
SO BUILDWID LABADIE1       220.81  212.22  197.19  176.16  149.79  118.86
SO BUILDWID LABADIE1        84.32   43.39   61.83  112.08  144.48  172.49
SO BUILDLEN LABADIE1       176.16  149.79  118.86   84.32   47.21   76.28
SO BUILDLEN LABADIE1       112.08  144.48  172.49  195.26  212.09  222.49
SO BUILDLEN LABADIE1       226.12  220.00  229.51  220.81  212.22  197.19
SO BUILDLEN LABADIE1       176.16  149.79  118.86   84.32   47.21   76.28
SO BUILDLEN LABADIE1       112.08  144.48  172.49  195.26  212.09  222.49
SO BUILDLEN LABADIE1       226.12  220.00  229.51  220.81  212.22  197.19
SO XBADJ    LABADIE1       -88.14  -56.63  -23.40   10.55   44.17   41.54
SO XBADJ    LABADIE1        34.41   26.23   17.26    7.76   -1.97  -11.65
SO XBADJ    LABADIE1       -20.97  -30.23  -28.68  -57.59  -69.96  -80.21
SO XBADJ    LABADIE1       -88.02  -93.15  -95.46  -94.86  -91.38 -117.82
SO XBADJ    LABADIE1      -146.49 -170.71 -189.75 -203.02 -210.12 -210.84
SO XBADJ    LABADIE1      -205.15 -189.77 -200.83 -163.22 -142.26 -116.98
SO YBADJ    LABADIE1      -105.39 -104.07  -99.60  -92.09  -81.79  -67.87
SO YBADJ    LABADIE1       -52.81  -36.15  -18.38   -0.06   18.26   36.03
SO YBADJ    LABADIE1        52.71   25.71  -16.96   90.45   98.47  103.50
SO YBADJ    LABADIE1       105.39  104.07   99.60   92.09   81.79   67.87
SO YBADJ    LABADIE1        52.81   36.15   18.38    0.06  -18.26  -36.03
SO YBADJ    LABADIE1       -52.71  -25.71   16.96  -90.45  -98.47 -103.51
SO BUILDHGT LABADIE2        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE2        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE2        78.44   25.37   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE2        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE2        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE2        78.44   25.37   78.44   78.44   78.44   78.44
SO BUILDWID LABADIE2       195.26  212.09  222.49  226.12  222.88  222.69
SO BUILDWID LABADIE2       220.81  212.22  197.19  176.16  149.79  118.86
SO BUILDWID LABADIE2        84.32   43.39   76.28  112.08  144.48  172.49
SO BUILDWID LABADIE2       195.26  212.09  222.49  226.12  222.88  222.69
SO BUILDWID LABADIE2       220.81  212.22  197.19  176.16  149.79  118.86
SO BUILDWID LABADIE2        84.32   43.39   76.28  112.08  144.48  172.49
SO BUILDLEN LABADIE2       176.16  149.79  118.86   84.32   47.21   76.28
SO BUILDLEN LABADIE2       112.08  144.48  172.49  195.26  212.09  222.49
SO BUILDLEN LABADIE2       226.12  220.00  222.69  220.81  212.22  197.19
SO BUILDLEN LABADIE2       176.16  149.79  118.86   84.32   47.21   76.28
SO BUILDLEN LABADIE2       112.08  144.48  172.49  195.26  212.09  222.49
SO BUILDLEN LABADIE2       226.12  220.00  222.69  220.81  212.22  197.19
SO XBADJ    LABADIE2       -49.69  -26.08   -1.68   22.77   46.53   33.97
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SO XBADJ    LABADIE2        17.13   -0.23  -17.58  -34.40  -50.17  -64.41
SO XBADJ    LABADIE2       -76.70  -87.24 -100.02 -111.97 -120.52 -125.40
SO XBADJ    LABADIE2      -126.47 -123.70 -117.17 -107.09  -93.74 -110.24
SO XBADJ    LABADIE2      -129.21 -144.25 -154.91 -160.86 -161.93 -158.07
SO XBADJ    LABADIE2      -149.41 -132.76 -122.66 -108.84  -91.71  -71.79
SO YBADJ    LABADIE2       -63.23  -55.88  -46.83  -36.35  -24.78  -11.32
SO YBADJ    LABADIE2         1.57   14.40   26.81   38.39   48.81   57.75
SO YBADJ    LABADIE2        64.93   28.07   72.10   73.17   72.01   68.66
SO YBADJ    LABADIE2        63.23   55.88   46.83   36.35   24.78   11.32
SO YBADJ    LABADIE2        -1.57  -14.40  -26.81  -38.39  -48.81  -57.75
SO YBADJ    LABADIE2       -64.93  -28.07  -72.10  -73.17  -72.01  -68.66
SO BUILDHGT LABADIE3        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE3        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE3        27.71   27.71   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE3        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE3        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE3        27.71   27.71   78.44   78.44   78.44   78.44
SO BUILDWID LABADIE3       195.26  212.09  222.49  226.12  222.88  222.69
SO BUILDWID LABADIE3       220.81  212.22  197.19  176.16  149.79  118.86
SO BUILDWID LABADIE3        69.54   30.46   76.28  112.08  144.48  172.49
SO BUILDWID LABADIE3       195.26  212.09  222.49  226.12  222.88  222.69
SO BUILDWID LABADIE3       220.81  212.22  197.19  176.16  149.79  118.86
SO BUILDWID LABADIE3        69.54   30.46   76.28  112.08  144.48  172.49
SO BUILDLEN LABADIE3       176.16  149.79  118.86   84.32   47.21   76.28
SO BUILDLEN LABADIE3       112.08  144.48  172.49  195.26  212.09  222.49
SO BUILDLEN LABADIE3       230.71  230.36  222.69  220.81  212.22  197.19
SO BUILDLEN LABADIE3       176.16  149.79  118.86   84.32   47.21   76.28
SO BUILDLEN LABADIE3       112.08  144.48  172.49  195.26  212.09  222.49
SO BUILDLEN LABADIE3       230.71  230.36  222.69  220.81  212.22  197.19
SO XBADJ    LABADIE3         8.93   21.31   33.04   43.77   53.16   26.03
SO XBADJ    LABADIE3        -5.13  -36.13  -66.04  -93.94 -118.99 -140.42
SO XBADJ    LABADIE3      -177.41 -174.21 -183.20 -192.51 -195.97 -193.47
SO XBADJ    LABADIE3      -185.09 -171.09 -151.89 -128.08 -100.38 -102.31
SO XBADJ    LABADIE3      -106.95 -108.35 -106.45 -101.32  -93.11  -82.07
SO XBADJ    LABADIE3       -53.30  -56.15  -39.48  -28.30  -16.26   -3.72
SO YBADJ    LABADIE3        -3.69   12.94   29.17   44.52   58.52   71.86
SO YBADJ    LABADIE3        82.11   89.86   94.88   97.01   96.20   92.47
SO YBADJ    LABADIE3       -13.38  -23.94   64.17   50.91   36.11   20.20
SO YBADJ    LABADIE3         3.69  -12.94  -29.17  -44.52  -58.52  -71.86
SO YBADJ    LABADIE3       -82.11  -89.86  -94.88  -97.01  -96.20  -92.47
SO YBADJ    LABADIE3        13.38   23.94  -64.17  -50.91  -36.11  -20.20
SO BUILDHGT LABADIE4        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE4        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE4        27.71   27.71   78.44   78.44   78.44   78.44
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SO BUILDHGT LABADIE4        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE4        78.44   78.44   78.44   78.44   78.44   78.44
SO BUILDHGT LABADIE4        27.71   27.71   78.44   78.44   78.44   78.44
SO BUILDWID LABADIE4       195.26  212.09  222.49  226.12  222.88  222.69
SO BUILDWID LABADIE4       220.81  212.22  197.19  176.16  149.79  118.86
SO BUILDWID LABADIE4        69.54   30.46   76.28  112.08  144.48  172.49
SO BUILDWID LABADIE4       195.26  212.09  222.49  226.12  222.88  222.69
SO BUILDWID LABADIE4       220.81  212.22  197.19  176.16  149.79  118.86
SO BUILDWID LABADIE4        69.54   30.46   76.28  112.08  144.48  172.49
SO BUILDLEN LABADIE4       176.16  149.79  118.86   84.32   47.21   76.28
SO BUILDLEN LABADIE4       112.08  144.48  172.49  195.26  212.09  222.49
SO BUILDLEN LABADIE4       230.71  230.36  222.69  220.81  212.22  197.19
SO BUILDLEN LABADIE4       176.16  149.79  118.86   84.32   47.21   76.28
SO BUILDLEN LABADIE4       112.08  144.48  172.49  195.26  212.09  222.49
SO BUILDLEN LABADIE4       230.71  230.36  222.69  220.81  212.22  197.19
SO XBADJ    LABADIE4        13.09   24.61   35.38   45.07   53.39   25.18
SO XBADJ    LABADIE4        -7.03  -39.03  -69.85  -98.54 -124.24 -146.17
SO XBADJ    LABADIE4      -183.47 -180.41 -189.35 -198.42 -201.45 -198.37
SO XBADJ    LABADIE4      -189.26 -174.40 -154.23 -129.39 -100.61 -101.46
SO XBADJ    LABADIE4      -105.05 -105.45 -102.64  -96.72  -87.85  -76.32
SO XBADJ    LABADIE4       -47.23  -49.95  -33.33  -22.39  -10.77    1.18
SO YBADJ    LABADIE4         0.91   18.20   34.92   50.59   64.72   78.01
SO YBADJ    LABADIE4        88.01   95.34   99.78  101.18   99.50   94.81
SO YBADJ    LABADIE4       -12.08  -23.71   63.32   49.01   33.21   16.39
SO YBADJ    LABADIE4        -0.91  -18.20  -34.92  -50.59  -64.72  -78.01
SO YBADJ    LABADIE4       -88.01  -95.34  -99.78 -101.18  -99.50  -94.81
SO YBADJ    LABADIE4        12.08   23.71  -63.32  -49.01  -33.21  -16.39

**Ameren Meramec
**Boiler #1
**
SO LOCATION MERMC1 Point 732714.14  4253776.27  127.47
SO SRCPARAM MERMC1 89.9624867 76.2 419.7055556  30.975808  3.3528
SO HOUREMIS .\Att-Demo-All-Source-Hourly-08-10Met-11-13Emis.txt MERMC1
**Boiler #2
**
SO LOCATION MERMC2 POINT  732675.11  4253783.41  127.71
SO SRCPARAM MERMC2 188.870823 76.2 434.4833333  30.214316  3.3528
SO HOUREMIS .\Att-Demo-All-Source-Hourly-08-10Met-11-13Emis.txt MERMC2
**Boiler #3
**
SO LOCATION MERMC3 POINT  732626.15  4253790.07  127.96
SO SRCPARAM MERMC3 160.244104 106.68 462.0944444  41.270428  4.2672
SO HOUREMIS .\Att-Demo-All-Source-Hourly-08-10Met-11-13Emis.txt MERMC3
```

```
**Boiler #4
**
SO LOCATION MERMC4 POINT  732582.63  4253799.56  128.13
SO SRCPARAM MERMC4 232.377891 106.68 446.2055556  37.57676  4.8768
SO HOUREMIS .\Att-Demo-All-Source-Hourly-08-10Met-11-13Emis.txt MERMC4
**EMERGENCY DIESEL GEN.
**
SO LOCATION EU5 Point 732735.459 4253533.206 128.13
SO SRCPARAM EU5 0.969214466 12.192 612.0388889 11.61288 0.3048
**Internal Combustion Engines
**
SO LOCATION MERMC6 Point 732735.459 4253533.206 128.13
SO SRCPARAM MERMC6 0.336834334 9.7536 838.7055556 31.63824 3.6576
**Internal Combustion Engines
**
SO LOCATION MERMC62 Point 732735.459 4253533.206 128.13
SO SRCPARAM MERMC62 7.614 8.99  838.71  20.97  4.75
**Meramec BPIP
**BPIP Output Dated January 30, 2014
SO BUILDHGT MERMC1 41.88 41.88 41.88 41.88 41.88 41.88
SO BUILDHGT MERMC1 41.88 41.88 29.95 27.81 41.88 52.12
SO BUILDHGT MERMC1 52.12 41.88 41.88 41.88 41.88 41.88
SO BUILDHGT MERMC1 41.88 41.88 41.88 41.88 41.88 41.88
SO BUILDHGT MERMC1 41.88 41.88 27.81 27.81 41.88 41.88
SO BUILDHGT MERMC1 41.88 41.88 41.88 41.88 41.88 41.88
SO BUILDWID MERMC1 170.39 174.11 174.3 169.2 158.95 143.88
SO BUILDWID MERMC1 124.43 101.2 30.45 25.56 59.41 36.57
SO BUILDWID MERMC1 38.43 116.92 136.73 152.39 163.42 169.48
SO BUILDWID MERMC1 170.39 174.11 174.3 169.2 158.95 143.88
SO BUILDWID MERMC1 124.43 101.2 28.98 25.56 59.41 80.18
SO BUILDWID MERMC1 98.51 116.92 136.73 152.39 163.42 169.48
SO BUILDLEN MERMC1 46.32 59.41 80.18 98.51 116.92 136.73
SO BUILDLEN MERMC1 152.39 163.42 55.77 83.4 174.11 44.22
SO BUILDLEN MERMC1 45.77 158.95 143.88 124.43 101.2 74.9
SO BUILDLEN MERMC1 46.32 59.41 80.18 98.51 116.92 136.73
SO BUILDLEN MERMC1 152.39 163.42 49.12 83.4 174.11 174.3
SO BUILDLEN MERMC1 169.2 158.95 143.88 124.43 101.2 74.9
SO XBADJ    MERMC1 24.13 6.64 -15.2 -36.57 -59.89 -86.36
SO XBADJ    MERMC1 -110.2 -130.69 -169.5 -108.22 -168.61 -168.62
SO XBADJ    MERMC1 -165.65 -166.92 -156.03 -140.4 -120.51 -96.95
SO XBADJ    MERMC1 -70.45 -66.05 -64.98 -61.95 -57.03 -50.38
SO XBADJ    MERMC1 -42.19 -32.73 0.47 24.83 -5.5 -1
SO XBADJ    MERMC1 3.54 7.97 12.16 15.97 19.3 22.05
SO YBADJ    MERMC1 74.06 81.55 86.15 88.14 87.44 84.09
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SO YBADJ    MERMC1 78.19 69.91 1.68 -20.62 36.34 -8.78
SO YBADJ    MERMC1 -34.08 -1.43 -17.99 -34 -48.98 -62.47
SO YBADJ    MERMC1 -74.06 -81.55 -86.15 -88.14 -87.44 -84.09
SO YBADJ    MERMC1 -78.19 -69.91 14.43 20.62 -36.34 -24.89
SO YBADJ    MERMC1 -12.69 1.43 17.99 34 48.98 62.47
SO BUILDHGT MERMC2 41.88 41.88 41.88 41.88 41.88 41.88
SO BUILDHGT MERMC2 41.88 41.88 41.88 27.81 41.88 52.12
SO BUILDHGT MERMC2 52.12 52.12 41.88 41.88 41.88 41.88
SO BUILDHGT MERMC2 41.88 41.88 41.88 41.88 41.88 41.88
SO BUILDHGT MERMC2 41.88 41.88 41.88 27.81 41.88 41.88
SO BUILDHGT MERMC2 41.88 52.12 41.88 41.88 41.88 41.88
SO BUILDWID MERMC2 170.39 174.11 174.3 169.2 158.95 143.88
SO BUILDWID MERMC2 124.43 101.2 74.9 25.56 59.41 36.57
SO BUILDWID MERMC2 40.87 42 136.73 152.39 163.42 169.48
SO BUILDWID MERMC2 170.39 174.11 174.3 169.2 158.95 143.88
SO BUILDWID MERMC2 124.43 101.2 74.9 25.56 59.41 80.18
SO BUILDWID MERMC2 98.51 42 136.73 152.39 163.42 169.48
SO BUILDLEN MERMC2 46.32 59.41 80.18 98.51 116.92 136.73
SO BUILDLEN MERMC2 152.39 163.42 169.48 83.4 174.11 44.22
SO BUILDLEN MERMC2 45.77 45.94 143.88 124.43 101.2 74.9
SO BUILDLEN MERMC2 46.32 59.41 80.18 98.51 116.92 136.73
SO BUILDLEN MERMC2 152.39 163.42 169.48 83.4 174.11 174.3
SO BUILDLEN MERMC2 169.2 45.94 143.88 124.43 101.2 74.9
SO XBADJ    MERMC2 23.87 13.28 -1.86 -16.95 -34.58 -56.13
SO XBADJ    MERMC2 -75.96 -93.49 -108.18 -68.55 -129.49 -131.25
SO XBADJ    MERMC2 -131.16 -127.08 -130.33 -120.34 -106.7 -89.81
SO XBADJ    MERMC2 -70.19 -72.69 -78.32 -81.57 -82.34 -80.61
SO XBADJ    MERMC2 -76.43 -69.93 -61.3 -14.85 -44.62 -38.37
SO XBADJ    MERMC2 -30.95 81.14 -13.54 -4.09 5.5 14.91
SO YBADJ    MERMC2 34.38 42.43 48.78 53.65 56.89 58.4
SO YBADJ    MERMC2 58.13 56.1 52.36 -20.88 42.98 4.55
SO YBADJ    MERMC2 -14.47 -33.05 12.24 0.23 -11.78 -23.44
SO YBADJ    MERMC2 -34.38 -42.43 -48.78 -53.65 -56.89 -58.4
SO YBADJ    MERMC2 -58.13 -56.1 -52.36 20.88 -42.98 -38.23
SO YBADJ    MERMC2 -32.31 33.05 -12.24 -0.23 11.78 23.44
SO BUILDHGT MERMC3 41.88 41.88 41.88 41.88 41.88 41.88
SO BUILDHGT MERMC3 41.88 41.88 41.88 27.81 41.88 52.12
SO BUILDHGT MERMC3 52.12 52.12 52.12 52.12 52.12 41.88
SO BUILDHGT MERMC3 41.88 41.88 41.88 41.88 41.88 41.88
SO BUILDHGT MERMC3 41.88 41.88 41.88 27.81 41.88 52.12
SO BUILDHGT MERMC3 52.12 52.12 52.12 52.12 52.12 41.88
SO BUILDWID MERMC3 170.39 174.11 174.3 169.2 158.95 143.88
SO BUILDWID MERMC3 124.43 101.2 74.9 25.56 64.83 36.57
SO BUILDWID MERMC3 40.87 43.93 45.65 45.99 44.93 169.48
```

```
SO BUILDWID MERMC3 170.39 174.11 174.3 169.2 158.95 143.88
SO BUILDWID MERMC3 124.43 101.2 74.9 25.56 64.83 36.57
SO BUILDWID MERMC3 40.87 43.93 45.65 45.99 44.93 169.48
SO BUILDLEN MERMC3 46.32 59.41 80.18 98.51 116.92 136.73
SO BUILDLEN MERMC3 152.39 163.42 169.48 83.4 174.11 44.22
SO BUILDLEN MERMC3 45.77 45.94 44.71 42.12 38.25 74.9
SO BUILDLEN MERMC3 46.32 59.41 80.18 98.51 116.92 136.73
SO BUILDLEN MERMC3 152.39 163.42 169.48 83.4 174.11 44.22
SO BUILDLEN MERMC3 45.77 45.94 44.71 42.12 38.25 74.9
SO XBADJ    MERMC3 25.81 23.76 16.85 9.42 -1.36 -17.06
SO XBADJ    MERMC3 -32.23 -46.43 -59.22 -19.18 -81.2 -85.52
SO XBADJ    MERMC3 -89.37 -90.51 -88.9 -84.59 -77.7 -83.15
SO XBADJ    MERMC3 -72.14 -83.17 -97.03 -107.94 -115.56 -119.68
SO XBADJ    MERMC3 -120.16 -116.99 -110.26 -64.22 -92.9 41.3
SO XBADJ    MERMC3 43.6 44.57 44.19 42.47 39.45 8.25
SO YBADJ    MERMC3 -14.99 -5.85 3.05 11.86 20.31 28.15
SO YBADJ    MERMC3 35.13 41.04 45.7 -18.94 50.76 23.27
SO YBADJ    MERMC3 11.9 0.18 -11.55 -22.93 -33.61 25.52
SO YBADJ    MERMC3 14.99 5.85 -3.05 -11.86 -20.31 -28.15
SO YBADJ    MERMC3 -35.13 -41.04 -45.7 18.94 -50.76 -23.27
SO YBADJ    MERMC3 -11.9 -0.18 11.55 22.93 33.61 -25.52


SO BUILDHGT MERMC4 52.12 52.12 52.12 52.12 52.12 52.12
SO BUILDHGT MERMC4 52.12 41.88 41.88 27.81 28.73 41.88
SO BUILDHGT MERMC4 52.12 52.12 52.12 52.12 52.12 52.12
SO BUILDHGT MERMC4 52.12 52.12 52.12 52.12 52.12 52.12
SO BUILDHGT MERMC4 52.12 41.88 41.88 27.81 28.73 41.88
SO BUILDHGT MERMC4 52.12 52.12 52.12 52.12 52.12 52.12
SO BUILDWID MERMC4 38.79 41.32 44.22 45.77 45.94 44.71
SO BUILDWID MERMC4 42.12 101.2 74.9 25.56 32.53 92.05
SO BUILDWID MERMC4 40.87 43.93 45.65 45.99 44.93 42.51
SO BUILDWID MERMC4 38.79 41.32 44.22 45.77 45.94 44.71
SO BUILDWID MERMC4 42.12 101.2 74.9 25.56 32.53 92.05
SO BUILDWID MERMC4 40.87 43.93 45.65 45.99 44.93 42.51
SO BUILDLEN MERMC4 27.18 31.15 36.57 40.87 43.93 45.65
SO BUILDLEN MERMC4 45.99 163.42 169.48 83.4 77.19 174.3
SO BUILDLEN MERMC4 45.77 45.94 44.71 42.12 38.25 33.22
SO BUILDLEN MERMC4 27.18 31.15 36.57 40.87 43.93 45.65
SO BUILDLEN MERMC4 45.99 163.42 169.48 83.4 77.19 174.3
SO BUILDLEN MERMC4 45.77 45.94 44.71 42.12 38.25 33.22
SO XBADJ    MERMC4 28.17 24.31 18.52 12.17 5.45 -1.44
SO XBADJ    MERMC4 -8.28 -5.22 -15.7 25.33 -1.15 -47.77
SO XBADJ    MERMC4 -49.93 -55.27 -58.92 -60.78 -60.8 -58.97
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SO XBADJ    MERMC4 -55.35 -55.47 -55.09 -53.04 -49.38 -44.22
SO XBADJ    MERMC4 -37.71 -158.2 -153.78 -108.73 -76.05 -126.53
SO XBADJ    MERMC4 4.16 9.33 14.21 18.66 22.55 25.75
SO YBADJ    MERMC4 7.11 14.26 20.97 27.04 32.3 36.56
SO YBADJ    MERMC4 39.72 24.13 36.21 -20.72 -17.08 64.55
SO YBADJ    MERMC4 32.61 27.42 21.39 14.72 7.6 0.24
SO YBADJ    MERMC4 -7.11 -14.26 -20.97 -27.04 -32.3 -36.56
SO YBADJ    MERMC4 -39.72 -24.13 -36.21 20.72 17.08 -64.55
SO YBADJ    MERMC4 -32.61 -27.42 -21.39 -14.72 -7.6 -0.24
SO BUILDHGT MERMC6      8.84   8.84   8.84   8.84   8.84   8.84
SO BUILDHGT MERMC6      8.84   8.84   8.84   8.84   8.84   8.84
SO BUILDHGT MERMC6      8.84   8.84   8.84   8.84   8.84   8.84
SO BUILDHGT MERMC6      8.84   8.84   8.84   8.84   8.84   8.84
SO BUILDHGT MERMC6      8.84   8.84   8.84   8.84   8.84  41.88
SO BUILDHGT MERMC6     52.12  52.12   8.84   8.84   8.84   8.84
SO BUILDWID MERMC6     24.81  28.65  31.62  33.62  34.61  34.54
SO BUILDWID MERMC6     34.41  34.69  33.91  32.10  29.32  25.65
SO BUILDWID MERMC6     21.26  17.33  12.87  10.95  15.01  20.22
SO BUILDWID MERMC6     24.81  28.65  31.62  33.62  34.61  34.54
SO BUILDWID MERMC6     34.41  34.69  33.91  32.10  29.32  80.18
SO BUILDWID MERMC6     40.87  43.35  12.87  10.95  15.01  20.22
SO BUILDLEN MERMC6     32.10  29.32  25.65  21.26  17.33  12.87
SO BUILDLEN MERMC6     10.95  15.01  20.22  24.81  28.65  31.62
SO BUILDLEN MERMC6     33.62  34.61  34.54  34.41  34.69  33.91
SO BUILDLEN MERMC6     32.10  29.32  25.65  21.26  17.33  12.87
SO BUILDLEN MERMC6     10.95  15.01  20.22  24.81  28.65 174.30
SO BUILDLEN MERMC6     45.77  45.94  34.54  34.41  34.69  33.91
SO XBADJ    MERMC6     -2.83  -1.43   0.02   1.40   1.64   1.83
SO XBADJ    MERMC6      1.40  -1.83  -6.60 -11.17 -15.41 -19.17
SO XBADJ    MERMC6    -22.35 -24.86 -26.60 -28.04 -29.34 -29.76
SO XBADJ    MERMC6    -29.27 -27.89 -25.67 -22.66 -18.97 -14.70
SO XBADJ    MERMC6    -12.35 -13.19 -13.62 -13.64 -13.24 -355.40
SO XBADJ    MERMC6   -235.25 -233.35  -7.94  -6.37  -5.34  -4.15
SO YBADJ    MERMC6     -1.23   1.08   3.36   5.54   7.55   9.33
SO YBADJ    MERMC6     10.83  12.00  12.80  13.22  13.23  12.84
SO YBADJ    MERMC6     12.03  10.30   8.26   6.88   5.68   3.51
SO YBADJ    MERMC6      1.23  -1.08  -3.36  -5.54  -7.55  -9.33
SO YBADJ    MERMC6    -10.83 -12.00 -12.80 -13.22 -13.23  10.25
SO YBADJ    MERMC6      7.16 -29.83  -8.26  -6.88  -5.68  -3.51
SO BUILDHGT MERMC62     7.32   7.32   8.84   6.25   6.25   6.25
SO BUILDHGT MERMC62     6.25   6.25   6.25   6.25   6.25   8.99
SO BUILDHGT MERMC62     8.99   8.99   8.99   8.99   8.99   8.99
SO BUILDHGT MERMC62     6.25   6.25   8.84   8.84   8.84   8.84
SO BUILDHGT MERMC62     8.84   8.84   8.84   6.25  41.88  41.88
```

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SO BUILDHGT MERMC62      41.88    8.99    8.99    8.99    8.99    7.32
SO BUILDWID MERMC62      14.33   14.33   31.62   24.67   25.42   25.39
SO BUILDWID MERMC62      25.29   25.46   24.87   23.52   21.45    5.81
SO BUILDWID MERMC62       5.81    5.63    5.29    5.20    5.58    5.79
SO BUILDWID MERMC62      18.13   20.97   31.62   33.62   34.61   34.54
SO BUILDWID MERMC62      34.41   34.69   33.91   23.52   59.41   80.18
SO BUILDWID MERMC62      98.51    5.63    5.29    5.20    5.58   14.33
SO BUILDLEN MERMC62      14.33   14.33   25.65   15.45   11.70    7.59
SO BUILDLEN MERMC62       6.73   10.90   14.74   18.13   20.97    5.37
SO BUILDLEN MERMC62       4.89    4.27    3.51    3.34    4.12    4.77
SO BUILDLEN MERMC62      23.52   21.45   25.65   21.26   17.33   12.87
SO BUILDLEN MERMC62      10.95   15.01   20.22   18.13  174.11  174.30
SO BUILDLEN MERMC62     169.20    4.27    3.51    3.34    4.12   14.33
SO XBADJ    MERMC62     -49.51  -49.34   17.59   -5.14   -3.88   -2.51
SO XBADJ    MERMC62      -2.80   -5.63   -8.28  -10.68  -12.76    5.78
SO XBADJ    MERMC62       6.78    7.57  -19.72    8.09  -19.88    6.26
SO XBADJ    MERMC62     -15.68  -14.31  -43.24  -43.47  -42.38  -40.00
SO XBADJ    MERMC62     -38.78  -39.94  -39.88   -7.45 -371.34 -375.58
SO XBADJ    MERMC62    -368.40  -11.83  -11.63  -11.43  -11.40  -48.40
SO YBADJ    MERMC62       2.69   -4.70  -16.81    3.36    3.76    4.04
SO YBADJ    MERMC62       4.21    4.24    4.15    3.92    3.58   -5.09
SO YBADJ    MERMC62      -3.55   -1.89    2.75    1.54   -3.56    4.79
SO YBADJ    MERMC62      -1.62   -2.27   16.81   11.28    5.40   -0.65
SO YBADJ    MERMC62      -6.67  -12.49  -17.94   -3.92   46.01   -7.32
SO YBADJ    MERMC62     -60.43    1.89    0.18   -1.54   -3.21   10.00

**Rush Island
**Boiler #1
**
SO LOCATION RUSH1 Point 739918.06  4223889.95 125.27
SO SRCPARAM RUSH1 276.7678444 213.36 428.72 33.02 6.31
SO HOUREMIS .\Att-Demo-All-Source-Hourly-08-10Met-11-13Emis.txt RUSH1
**Boiler #2
**
SO LOCATION RUSH2 Point 739922.42  4223893.92 125.27
SO SRCPARAM RUSH2 288.2351515 213.36 436.11 32.97 6.31
SO HOUREMIS .\Att-Demo-All-Source-Hourly-08-10Met-11-13Emis.txt RUSH2
**Auxiliary Boiler
**
SO LOCATION RUSH3 Point 739890.00  4224000.00 125.27
SO SRCPARAM RUSH3 0.000288457 84.582 577.5944444 10.0584 1.524
**BPIP Outputs Dated January 23, 2012
SO BUILDHGT RUSH1        81.99   81.99   27.93   27.93   27.93   27.93
SO BUILDHGT RUSH1        27.93   27.93   81.99   81.99   81.99   81.99
```

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SO BUILDHGT RUSH1      81.99   81.99   81.99   81.99   81.99   81.99
SO BUILDHGT RUSH1      81.99   81.99   27.93   27.93   27.93   27.93
SO BUILDHGT RUSH1      27.93   27.93   81.99   81.99   81.99   81.99
SO BUILDHGT RUSH1      81.99   81.99   81.99   81.99   81.99   81.99
SO BUILDWID RUSH1      92.65   83.82   85.03   81.01   74.53   79.12
SO BUILDWID RUSH1      83.63   85.61   89.11   96.27  100.50  101.68
SO BUILDWID RUSH1      99.77   94.83   98.46  101.62  101.69   98.67
SO BUILDWID RUSH1      92.65   83.82   85.03   81.01   74.53   79.12
SO BUILDWID RUSH1      83.63   85.61   89.11   96.27  100.50  101.68
SO BUILDWID RUSH1      99.77   94.83   98.46  101.62  101.69   98.67
SO BUILDLEN RUSH1      96.27  100.50   69.62   63.81   56.06   62.70
SO BUILDLEN RUSH1      69.55   75.23   98.67   92.65   83.82   72.44
SO BUILDLEN RUSH1      58.86   45.72   55.29   68.14   79.24   89.11
SO BUILDLEN RUSH1      96.27  100.50   69.62   63.81   56.06   62.70
SO BUILDLEN RUSH1      69.55   75.23   98.67   92.65   83.82   72.44
SO BUILDLEN RUSH1      58.86   45.72   55.29   68.14   79.24   89.11
SO XBADJ    RUSH1      19.30    3.72  -39.43  -46.66  -52.47  -61.55
SO XBADJ    RUSH1     -69.39  -76.06 -108.43 -118.27 -124.52 -126.99
SO XBADJ    RUSH1    -125.60 -122.61 -126.65 -128.87 -127.48 -123.40
SO XBADJ    RUSH1    -115.57 -104.22  -30.20  -17.16   -3.60   -1.15
SO XBADJ    RUSH1      -0.16    0.83    9.76   25.62   40.70   54.55
SO XBADJ    RUSH1      66.74   76.90   71.37   60.73   48.24   34.29
SO YBADJ    RUSH1      71.95   82.61   46.79   45.37   42.58   38.29
SO YBADJ    RUSH1      33.10   26.90   78.84   67.43   53.97   38.87
SO YBADJ    RUSH1      22.58    5.61  -11.59  -28.45  -44.45  -59.10
SO YBADJ    RUSH1     -71.95  -82.61  -46.79  -45.37  -42.58  -38.29
SO YBADJ    RUSH1     -33.10  -26.90  -78.84  -67.43  -53.97  -38.87
SO YBADJ    RUSH1     -22.58   -5.61   11.59   28.45   44.45   59.10
SO BUILDHGT RUSH2      81.99   27.93   27.93   27.93   27.93   27.93
SO BUILDHGT RUSH2      27.93   27.93   81.99   81.99   81.99   81.99
SO BUILDHGT RUSH2      81.99   81.99   81.99   81.99   81.99   81.99
SO BUILDHGT RUSH2      81.99   27.93   27.93   27.93   27.93   27.93
SO BUILDHGT RUSH2      27.93   27.93   81.99   81.99   81.99   81.99
SO BUILDHGT RUSH2      81.99   81.99   81.99   81.99   81.99   81.99
SO BUILDWID RUSH2      92.65   86.47   85.03   81.01   74.53   79.12
SO BUILDWID RUSH2      83.63   85.61   89.11   96.27  100.50  101.68
SO BUILDWID RUSH2      99.77   94.83   98.46  101.62  101.69   98.67
SO BUILDWID RUSH2      92.65   86.47   85.03   81.01   74.53   79.12
SO BUILDWID RUSH2      83.63   85.61   89.11   96.27  100.50  101.68
SO BUILDWID RUSH2      99.77   94.83   98.46  101.62  101.69   98.67
SO BUILDLEN RUSH2      96.27   76.08   69.62   63.81   56.06   62.70
SO BUILDLEN RUSH2      69.55   75.23   98.67   92.65   83.82   72.44
SO BUILDLEN RUSH2      58.86   45.72   55.29   68.14   79.24   89.11
SO BUILDLEN RUSH2      96.27   76.08   69.62   63.81   56.06   62.70
```

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SO BUILDLEN RUSH2      69.55   75.23   98.67   92.65   83.82   72.44
SO BUILDLEN RUSH2      58.86   45.72   55.29   68.14   79.24   89.11
SO XBADJ    RUSH2      14.63  -38.98  -45.04  -52.50  -58.36  -67.31
SO XBADJ    RUSH2     -74.85  -81.04 -112.79 -121.88 -127.26 -128.78
SO XBADJ    RUSH2    -126.38 -122.37 -125.39 -126.63 -124.33 -119.43
SO XBADJ    RUSH2    -110.90  -37.10  -24.58  -11.31    2.30    4.61
SO XBADJ    RUSH2       5.29    5.81   14.12   29.22   43.44   56.34
SO XBADJ    RUSH2      67.52   76.66   70.11   58.49   45.09   30.32
SO YBADJ    RUSH2      75.55   49.52   48.58   46.16   42.34   37.03
SO YBADJ    RUSH2      30.86   23.75   74.87   62.76   48.75   33.25
SO YBADJ    RUSH2      16.74   -0.28  -17.35  -33.90  -49.43  -63.46
SO YBADJ    RUSH2     -75.55  -49.52  -48.58  -46.16  -42.34  -37.03
SO YBADJ    RUSH2     -30.86  -23.75  -74.87  -62.76  -48.75  -33.25
SO YBADJ    RUSH2     -16.74    0.28   17.35   33.90   49.43   63.46
SO BUILDHGT RUSH3      81.99   81.99   81.99   81.99   81.99   81.99
SO BUILDHGT RUSH3      81.99   81.99   81.99   81.99   81.99   81.99
SO BUILDHGT RUSH3      81.99   81.99   81.99   81.99   81.99   81.99
SO BUILDHGT RUSH3      81.99   81.99   81.99   81.99   81.99   81.99
SO BUILDHGT RUSH3      81.99   81.99   81.99   81.99   81.99   81.99
SO BUILDHGT RUSH3      81.99   81.99   81.99   81.99   81.99   81.99
SO BUILDWID RUSH3      92.65   83.82   72.44   58.86   45.72   55.29
SO BUILDWID RUSH3      68.14   79.24   89.11   96.27  100.50  101.68
SO BUILDWID RUSH3      99.77   94.83   98.46  101.62  101.69   98.67
SO BUILDWID RUSH3      92.65   83.82   72.44   58.86   45.72   55.29
SO BUILDWID RUSH3      68.14   79.24   89.11   96.27  100.50  101.68
SO BUILDWID RUSH3      99.77   94.83   98.46  101.62  101.69   98.67
SO BUILDLEN RUSH3      96.27  100.50  101.68   99.77   94.83   98.46
SO BUILDLEN RUSH3     101.62  101.69   98.67   92.65   83.82   72.44
SO BUILDLEN RUSH3      58.86   45.72   55.29   68.14   79.24   89.11
SO BUILDLEN RUSH3      96.27  100.50  101.68   99.77   94.83   98.46
SO BUILDLEN RUSH3     101.62  101.69   98.67   92.65   83.82   72.44
SO BUILDLEN RUSH3      58.86   45.72   55.29   68.14   79.24   89.11
SO XBADJ    RUSH3     -84.21  -90.10  -93.25  -93.57  -91.04  -91.54
SO XBADJ    RUSH3     -90.53  -86.77  -80.37  -71.53  -60.52  -47.66
SO XBADJ    RUSH3     -33.36  -20.27  -17.32  -15.86  -14.23  -13.35
SO XBADJ    RUSH3     -12.06  -10.40   -8.43   -6.20   -3.79   -6.92
SO XBADJ    RUSH3     -11.09  -14.92  -18.30  -21.12  -23.30  -24.78
SO XBADJ    RUSH3     -25.50  -25.44  -37.97  -52.28  -65.01  -75.76
SO YBADJ    RUSH3      25.20   18.61   11.44    3.93   -2.59  -10.33
SO YBADJ    RUSH3     -18.21  -25.39  -31.21  -36.07  -39.85  -42.41
SO YBADJ    RUSH3     -43.68  -43.63  -42.31  -39.72  -35.92  -31.03
SO YBADJ    RUSH3     -25.20  -18.61  -11.44   -3.93    2.59   10.33
SO YBADJ    RUSH3      18.21   25.39   31.21   36.07   39.85   42.41
SO YBADJ    RUSH3      43.68   43.63   42.31   39.72   35.92   31.03
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SO LOCATION  RC4K09  POINT  733110.42  4229152.675  149.97
SO LOCATION  RC6F19  POINT  733450.45  4229244.88  129.92
SO LOCATION  BRECK8  POINT  727679.896  4231875.566  134.36
SO LOCATION  BRECK15  POINT  727679.896  4231875.566  134.36
SO LOCATION  UNIM3  POINT  722160.096  4238054.6  172.32
SO LOCATION  DOW18  POINT  727729.079  4240744.022  132.74
SO LOCATION  DOW57  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW27C  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW27D  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW58A  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW58B  VOLUME  727729.079  4240744.022  132.74
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SO LOCATION  DOW58D  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW58E  VOLUME  727729.079  4240744.022  132.74
SO LOCATION  DOW58F  VOLUME  727729.079  4240744.022  132.74
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SO LOCATION  JMH1  POINT  728217.057  4230828.77  142.4
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SO LOCATION  JMH4  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH5  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH6  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH7  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH8  VOLUME 728217.057  4230828.77  142.4
SO LOCATION  JMH9  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH10  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH11  POINT  728217.057  4230828.77  142.4
SO LOCATION  JMH12  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH13  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH14  VOLUME  728217.057  4230828.77  142.4
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SO LOCATION  JMH16  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH17  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH18  VOLUME  728217.057  4230828.77  142.4
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SO LOCATION  JMH20  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH21  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  JMH22  VOLUME  728217.057  4230828.77  142.4
SO LOCATION  STGOB4  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB5  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB13  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB15  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB17  VOLUME  726819.998  4241850.691  163.38
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SO LOCATION  STGOB18  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB21  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB22  VOLUME  726819.998  4241850.691  163.38
SO LOCATION  STGOB40  POINT   726819.998  4241850.691  163.38
SO LOCATION  SHBRO2  VOLUME  727715.056  4235087.897  184.64
SO LOCATION  CC8A  POINT  726896.532  4241982.427  149.04
SO LOCATION  CC8B  POINT  726896.532  4241982.427  149.04
SO LOCATION  CC19  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  CC21A  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  CC29B  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  CC32  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  CC44  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  CC44B  VOLUME  726896.532  4241982.427  149.04
SO LOCATION  FW3  POINT  728528.504  4231662.434  122.43
SO LOCATION  FW2  POINT  728528.504  4231662.434  122.43
SO LOCATION  MCI2  POINT  720841.988  4249604.2  191.33
SO LOCATION  MCI1  POINT  720841.988  4249604.2  191.33
SO LOCATION  FWT2  POINT  725705.619  4241094.372  200.33
SO LOCATION  FWT6  POINT  725705.619  4241094.372  200.33
SO LOCATION  ACS1  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS2  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS3  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS4  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS5  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS6  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS9  POINT  724479.424  4236856.27  132.87
SO LOCATION  ACS10  POINT  724479.424  4236856.27  132.87
SO LOCATION  AMCS11  POINT  724866.247  4236812.124  126.31
SO LOCATION  PC4A  POINT  720055.11  4248898.08  208.52
SO LOCATION  PC7A  VOLUME  720055.11  4248898.08  208.52
SO LOCATION  JCCS1  VOLUME  727903.717  4240040.388  147.75
**Nearby Sources
SO LOCATION  HOLC1  POINT  740330.799 4221466.101  125.85
SO LOCATION  HOLC2  POINT  740330.79  4221466.101  126.45
SO LOCATION  HOLC3  POINT  740330.79  4221466.101  126.45
SO LOCATION  HOLC4  POINT  740330.79  4221840.42  129.1
SO LOCATION  HOLC5  POINT  740330.79  4221840.42  129.1
SO LOCATION  AB1  POINT  742779.50  4275725.49  148.31
**SO LOCATION  AB5C  POINT  742799.92  4275763.25  148.25 Inactive per facility
SO LOCATION  AB7B  POINT  743027.943  4275660.608  140.54
SO LOCATION  AB8B  POINT  742759.07  4275690.82  148.43
SO LOCATION  AB9B  POINT  742759.07  4275690.82  148.43
SO LOCATION  AB381  POINT  743027.943  4275660.608  140.54
```

```
**IL Sources
SO LOCATION  DMG1  POINT  775385.01  4233237.9  132.84
SO LOCATION  DMG2  POINT  775385.01  4233237.9  132.84
SO LOCATION  DMG5  POINT  775385.01  4233237.9  132.84
SO LOCATION  DMG13  POINT  775385.01  4233237.9  132.84
SO LOCATION  GECC4  POINT  749616  4287035  126.5
SO LOCATION  GECC6  POINT  749616  4287035  126.5
SO LOCATION  GECC7  POINT  749616  4287035  126.5
SO LOCATION  GECC10  POINT  749616  4287035  126.5
SO LOCATION  GECC11  POINT  749616  4287035  126.5
SO LOCATION  GECC12  POINT  749616  4287035  126.5
SO LOCATION  GECC13  POINT  749616  4287035  126.5
SO LOCATION  GECC14  POINT  749616  4287035  126.5
SO LOCATION  GECC15  POINT  749616  4287035  126.5
SO LOCATION  GECC16  POINT  749616  4287035  126.5
SO LOCATION  GECC17  POINT  749616  4287035  126.5
SO LOCATION  GECC18  POINT  749616  4287035  126.5
SO LOCATION  GECC19  POINT  749616  4287035  126.5
SO LOCATION  GECC20  POINT  749616  4287035  126.5
SO LOCATION  GECC21  POINT  749616  4287035  126.5
SO LOCATION  USS7  POINT  748063  4286987  128.6
SO LOCATION  USS8  POINT  748063  4286987  128.6
SO LOCATION  USS10  POINT  748063  4286987  128.6
SO LOCATION  USS11  POINT  748063  4286987  128.6
SO LOCATION  USS12  POINT  748063  4286987  128.6
SO LOCATION  USS13  POINT  748063  4286987  128.6
SO LOCATION  USS20  POINT  748063  4286987  128.6
SO LOCATION  USS47  POINT  748063  4286987  128.6
SO LOCATION  USS53  POINT  748063  4286987  128.6
SO LOCATION  USS54  POINT  748063  4286987  128.6
SO LOCATION  USS59  POINT  748063  4286987  128.6
SO LOCATION  USS64  POINT  748063  4286987  128.6
SO LOCATION  USS69  POINT  748063  4286987  128.6
SO LOCATION  USS71  POINT  748063  4286987  128.6
SO LOCATION  USS90  POINT  748063  4286987  128.6
SO LOCATION  USS92  POINT  748063  4286987  128.6
SO LOCATION  USS97  POINT  748063  4286987  128.6
SO LOCATION  USS126  POINT  748063  4286987  128.6
SO LOCATION  USS131  POINT  748063  4286987  128.6
SO LOCATION  USS149  POINT  748063  4286987  128.6
SO LOCATION  USS150  POINT  748063  4286987  128.6
SO LOCATION  USS175  POINT  748063  4286987  128.6
SO LOCATION  USS177  POINT  748063  4286987  128.6
SO LOCATION  USS179  POINT  748063  4286987  128.6
```

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SO LOCATION  USS181  POINT  748063  4286987  128.6
SO LOCATION  USS195  POINT  748063  4286987  128.6
SO LOCATION  USS218  POINT  748063  4286987  128.6
SO LOCATION  USS219  POINT  748063  4286987  128.6
SO LOCATION  USS241  POINT  748063  4286987  128.6
SO LOCATION  USS244  POINT  748063  4286987  128.6
SO LOCATION  USS245  POINT  748063  4286987  128.6
SO LOCATION  USS246  POINT  748063  4286987  128.6
SO LOCATION  USS250  POINT  748063  4286987  128.6
SO LOCATION  USS259  POINT  748063  4286987  128.6
SO LOCATION  USS260  POINT  748063  4286987  128.6
SO LOCATION  USS261  POINT  748063  4286987  128.6
SO LOCATION  USS262  POINT  748063  4286987  128.6
SO LOCATION  USS263  POINT  748063  4286987  128.6
SO LOCATION  USS265  POINT  748063  4286987  128.6

**NAA SOURCES
SO SRCPARAM  RC4K09  10.75  124.968  476.93  16.44  5.7912
SO SRCPARAM  RC6F19  0.000020155  38.1  369.0759  4.88696  2.0066
SO SRCPARAM  BRECK8  0  6.096  422.0388889  5.08  0.4573
SO SRCPARAM  BRECK15  0  6.096  422.0388889  0.01  0.4573
SO SRCPARAM  UNIM3  0  9.144  322.0388889  23.70836  1.8288
SO SRCPARAM  DOW18  0  15.8496  399.8166667  3.2512  0.6096
SO SRCPARAM  DOW57  0  5  1.1628  4.651
SO SRCPARAM  DOW65  0  4.572  838.15  45.63  0.0762
SO SRCPARAM  DOW27C  0  5  1.1628  4.651
SO SRCPARAM  DOW27D  0  5  1.1628  4.651
SO SRCPARAM  DOW58A  0  5  1.1628  4.651
SO SRCPARAM  DOW58B  0 5  1.1628  4.651
SO SRCPARAM  DOW58C  0  5  1.1628  4.651
SO SRCPARAM  DOW58D  0  5  1.1628  4.651
SO SRCPARAM  DOW58E  0  5  1.1628  4.651
SO SRCPARAM  DOW58F  0  5  1.1628  4.651
SO SRCPARAM  JMH1  0  11.8872  394.2611111  0.01524  0.658368
SO SRCPARAM  JMH2  4.88E-05  12.8016  435.9277778  0.02032  0.57912
SO SRCPARAM  JMH3  0  4.2672  473.15  0.01  0.5334
SO SRCPARAM  JMH4  0  4.2672  473.15  0.01  0.5334
SO SRCPARAM  JMH5  0  11.8872  394.2611111  0.01524  0.658368
SO SRCPARAM  JMH6  0  11.8872  394.2611111  0.01524  0.658368
SO SRCPARAM  JMH7  0  5  1.1628  4.651
SO SRCPARAM  JMH8  0  5  1.1628  4.651
SO SRCPARAM  JMH9  0  8.23  1255.37  0.2545  0.457
SO SRCPARAM  JMH10  0.0014  1.52  733.15  10.3124  0.1524
SO SRCPARAM  JMH11  0.00057  3.04  733.15  4.48  0.1524
```

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SO SRCPARAM  JMH12  0  5  1.1628  4.651
SO SRCPARAM  JMH13  0  5  1.1628  4.651
SO SRCPARAM  JMH14  0  5  1.1628  4.651
SO SRCPARAM  JMH15  0  5  1.1628  4.651
SO SRCPARAM  JMH16  0  5  1.1628  4.651
SO SRCPARAM  JMH17  0  5  1.1628  4.651
SO SRCPARAM  JMH18  0  5  1.1628  4.651
SO SRCPARAM  JMH19  0.00028  5  1.1628  4.651
SO SRCPARAM  JMH20  0.00086  5  1.1628  4.651
SO SRCPARAM  JMH21  0.00086  5  1.1628  4.651
SO SRCPARAM  JMH22  0.00057  5  1.1628  4.651
SO SRCPARAM  STGOB4  0.00024  5  1.1628  4.651
SO SRCPARAM  STGOB5  0.00036  5  1.1628  4.651
SO SRCPARAM  STGOB13  0  5  1.1628  4.651
SO SRCPARAM  STGOB15  0  5  1.1628  4.651
SO SRCPARAM  STGOB17  0.0002  5  1.1628  4.651
SO SRCPARAM  STGOB18  0.0004  5  1.1628  4.651
SO SRCPARAM  STGOB21  0  5  1.1628  4.651
SO SRCPARAM  STGOB22  0.000359  5  1.1628  4.651
SO SRCPARAM  STGOB40  3.41  47.88 595  12  1.78
SO SRCPARAM  SHBRO2  0.044  5  1.1628  4.651
SO SRCPARAM  CC8A  0.0057  0.762  349.8166667  14.1732  0.6096
SO SRCPARAM  CC8B  0.000014364  0.762  349.8166667  14.1732  0.6096
SO SRCPARAM  CC19  0.0000633446  5  1.1628  4.651
SO SRCPARAM  CC21A  0.00158  5  1.1628  4.651
SO SRCPARAM  CC29B  7.47E-05  5  1.1628  4.651
SO SRCPARAM  CC32  0.003855401  5  1.1628  4.651
SO SRCPARAM  CC44  0.000144  5  1.1628  4.651
SO SRCPARAM  CC44B  0.00013608  5  1.1628  4.651
SO SRCPARAM  FW3  0.00  6.09  783.15  11.684  0.253963415
SO SRCPARAM  FW2  0.00  12.8  383.15  28.0162  0.90304878
SO SRCPARAM  MCI2  0.0001738  10.67  394.2611111  9.7  0.609756098
SO SRCPARAM  MCI1  0.0001134  4.57  255.3722222  0.01  0.457317073
SO SRCPARAM  FWT2  0.0748  14.02  383.15  11.23188  1.307926829
SO SRCPARAM  FWT6  0.2483  3.96  660.9277778  11.176  0.253963415
SO SRCPARAM  ACS1  0.00869  8.53  1040.372222  5.70992  0.609756098
SO SRCPARAM  ACS2  0.000287  5.48  1007.594444  7.8232  0.304878049
SO SRCPARAM  ACS3  0.000287  9.14  1059.816667  6.8326  0.609756098
SO SRCPARAM  ACS4  0.0104  8.53  1040.372222  5.70992  0.609756098
SO SRCPARAM  ACS5  0.01103  8.53  1040.372222  5.70992  0.609756098
SO SRCPARAM  ACS6  0.000287  5.48  1003.705556  4.97332  0.304878049
SO SRCPARAM  ACS9  0.000181  9.14  1059.816667  6.8326  0.609756098
SO SRCPARAM  ACS10  0.000215  5.48  1007.594444  7.8232  0.304878049
SO SRCPARAM  AMCS11  0.000264  8.23  1037.038889  5.7912  0.914634146
```

```
SO SRCPARAM  PC4A  0.035  6.09  394.2611111  15.0114  1.524390244
SO SRCPARAM  PC7A  0  5  1.1628  4.651
SO SRCPARAM  JCCS1  0.09022  5  1.1628  4.651

**Nearby Sources
SO SRCPARAM  HOLC1  8.23  158.4655  369.15  16.002  5.5992
SO SRCPARAM  HOLC2  0.79  158.4655  361.15  11.94816  2.3592
SO SRCPARAM  HOLC3  0.79  158.4655  361.15  11.94816  2.3592
SO SRCPARAM  HOLC4  0.379  87.4776  373.15  16.61  2.11836
SO SRCPARAM  HOLC5  0.379  87.4776  373.15  16.61  2.11836
** using actual biogas and coal emissions reported for 2013 AB boilers only as of 08/12/14
SO SRCPARAM  AB1  48.9490517 68.58  438.7055556  6.46684  3.048
SO SRCPARAM  AB7B  0.00094  30.48  449.8166667  18.62836  0.9144
SO SRCPARAM  AB8B  17.7887049  68.58  449.8166667  5.62864  3.048
SO SRCPARAM  AB9B  20.4352057  68.58  449.8166667  5.62864  3.048
SO SRCPARAM  AB381  0.0876800693  6.096  283.15  21.336  0.3048
**IL Sources
SO SRCPARAM  DMG1  210.8729216  184.404  426.4833333  26.79192  5.9436
SO SRCPARAM  DMG2  287.0515468  184.404  423.7055556  26.79192  5.9436
SO SRCPARAM  DMG5  0.00001438  84.1248  552.5944444  16.21536  1.0668
SO SRCPARAM  DMG13  50.4145544  184.404  360.9277778  26.79192  5.9436
SO SRCPARAM  GECC4  0.004314  7.9248  422.0388889  20.75688  1.3716
SO SRCPARAM  GECC6  1.254219574  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC7  0.078630415  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC10  0  22.5552  486.4833333  8.93064  1.152144
SO SRCPARAM  GECC11  1.261775113  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC12  1.254219574  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC13  1.261775113  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC14  1.261775113  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC15  1.261775113  25.908  1366.483333  22.76856  2.7432
SO SRCPARAM  GECC16  0.079104092  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC17  0.079104092  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC18  0.078630415  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC19  0.079104092  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC20  0.079104092  6.096  477.5944444  21.21408  1.524
SO SRCPARAM  GECC21  26.5190208  60.96  406.4833333  11.82624  3.9624
SO SRCPARAM  USS7  1.3758784  66.1416  533.15  15.14856  2.1336
SO SRCPARAM  USS8  0.142362  18.288  409.8166667  9.26592  2.31648
SO SRCPARAM  USS10  6.337266  19.2024  338.7055556  19.47672  3.3528
SO SRCPARAM  USS11  5.697356  45.4152  518.7055556  11.94816  1.8288
SO SRCPARAM  USS12  2.4796872  68.58  533.15  18.56232  2.7432
SO SRCPARAM  USS13  0.1860772  18.288  409.8166667  9.26592  2.31648
SO SRCPARAM  USS20  0.0609712  17.3736  616.4833333  4.63296  4.191
SO SRCPARAM  USS47  4.1857304  27.432  449.8166667  4.7244  2.182368
```

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SO SRCPARAM  USS53  0  68.58  460.9277778  4.51104  4.2672
SO SRCPARAM  USS54  0  60.96  460.9277778  3.13944  3.3528
SO SRCPARAM  USS59  1.118764  46.3296  441.4833333  1.18872  2.1336
SO SRCPARAM  USS64  1.0212676  46.3296  441.4833333  10.63752  2.1336
SO SRCPARAM  USS69  0.395059439  5.4864  314.8166667  25.96896  1.2192
SO SRCPARAM  USS71  0.9896316  76.2  529.2611111  4.99872  2.7432
SO SRCPARAM  USS90  0.414731567  5.4864  326.4833333  25.96896  1.2192
SO SRCPARAM  USS92  1.0390988  76.2  475.3722222  4.96824  2.7432
SO SRCPARAM  USS97  0.490358  32.004  408.7055556  7.19328  2.19456
SO SRCPARAM  USS126  0.3169352  3.6576  428.15  9.32688  1.95072
SO SRCPARAM  USS131  0  16.4592  505.3722222  5.6388  0.6096
SO SRCPARAM  USS149  0.0025884  60.96  455.3722222  10.5156  1.34112
SO SRCPARAM  USS150  0.2303676  19.2024  323.7055556  13.13688  2.1336
SO SRCPARAM  USS175  0.044578  17.3736  616.4833333  4.63296  4.191
SO SRCPARAM  USS177  0.0511928  44.5008  644.2611111  9.81456  3.834384
SO SRCPARAM  USS179  0.026562161  53.0352  376.4833333  6.76656  2.10312
SO SRCPARAM  USS181  0.027884833  53.0352  376.4833333  6.76656  2.10312
SO SRCPARAM  USS195  0.0831164  17.3736  616.4833333  4.63296  4.191
SO SRCPARAM  USS218  0.0046016  16.1544  421.4833333  10.30224  0.9144
SO SRCPARAM  USS219  0  13.1064  414.2611111  5.7912  0.70104
SO SRCPARAM  USS241  5.1443012  49.0728  449.8166667  15.97152  5.4864
SO SRCPARAM  USS244  0  11.8872  413.15  7.07136  0.618744
SO SRCPARAM  USS245  0  11.8872  413.15  7.07136  0.618744
SO SRCPARAM  USS246  0.002876  11.8872  413.15  7.07136  0.618744
SO SRCPARAM  USS250  0  11.2776  500.9277778  9.99744  0.576072
SO SRCPARAM  USS259  0  17.6784  497.5944444  8.41248  1.03632
SO SRCPARAM  USS260  0  17.6784  497.5944444  8.41248  1.03632
SO SRCPARAM  USS261  0  17.6784  497.5944444  8.41248  1.03632
SO SRCPARAM  USS262  0  17.6784  497.5944444  8.41248  1.03632
SO SRCPARAM  USS263  3.5725672  41.7576  500.9277778  18.95856  1.8288
SO SRCPARAM  USS265  5.697356  36.576  533.15  26.76144  2.1336

SO BACKGRND ANNUAL 9.0
  BACKUNIT PPB

SO SRCGROUP  Lab LABADIE1 LABADIE2 LABADIE3 LABADIE4 LABADIE5
SO SRCGROUP  Meramec MERMC1 MERMC2 MERMC3 MERMC4 MERMC6 MERMC62
SO SRCGROUP  Rush RUSH1 RUSH2 RUSH3
SO SRCGROUP  CC CC8A CC8B  CC19 CC21A CC29B  CC32  CC44  CC44B
SO SRCGROUP  AB  AB1 AB7B AB8B  AB9B  AB381
SO SRCGROUP  SHBRO  SHBRO2
SO SRCGROUP  STGO  STGOB4  STGOB5  STGOB13  STGOB15  STGOB17 STGOB18 STGOB21
STGOB22 STGOB40
SO SRCGROUP  JMH  JMH1-JMH22
```

```
SO SRCGROUP  DOW  DOW18 DOW57 DOW27C  DOW27D  DOW58A  DOW58B  DOW58C
DOW58D DOW58E DOW58F DOW65
SO SRCGROUP  DMG  DMG1  DMG2  DMG5  DMG13
SO SRCGROUP  GECC  GECC4  GECC6  GECC7  GECC10  GECC11  GECC12  GECC13  GECC14
GECC15 GECC16 GECC17 GECC18 GECC19 GECC20 GECC21
SO SRCGROUP  USS  USS7  USS8  USS10  USS11  USS12  USS13  USS20 USS47 USS53 USS54
USS59 USS64 USS69 USS71 USS90 USS97 USS241 USS263 USS265 USS241 USS92 USS259
USS250 USS150 USS245 USS244
SO SRCGROUP  UNIM  UNIM3
SO SRCGROUP  FW FW2 FW3
SO SRCGROUP  FWT FWT2 FWT6
SO SRCGROUP  MCI MCI1-MCI2
SO SRCGROUP  ACS ACS1-ACS10
SO SRCGROUP  AMCS  AMCS11
SO SRCGROUP  PC PC4A PC7A
SO SRCGROUP  JCCS JCCS1
SO SRCGROUP  RC  RC4K09  RC6F19
SO SRCGROUP  BRECK  BRECK8 BRECK15
SO SRCGROUP  HOL  HOLC1-HOLC5
SO SRCGROUP  ALL  BACKGROUND
SO FINISHED

RE STARTING
** AERMAP - VERSION 11103                                    10/23/14
**                                                  13:08:24
**  JEFFERSON COUNTY COURSE GRID
**
** A total of      13  NED files were used
** A total of     676  receptors were processed
** DOMAINXY 680000 4200000 15 780000 4300000 15
** ANCHORXY  680000 4200000 680000 4200000 15 4
** Terrain heights were extracted by default
```

ONLY PORTION OF RECEPTORS INCLUDED BELOW

```
RE ELEVUNIT METERS
  DISCCART    728550.00   4237600.00    117.48    151.33
  DISCCART    728600.00   4237600.00    117.06    151.33
  DISCCART    728650.00   4237600.00    118.65    151.33
  DISCCART    728700.00   4237600.00    118.44    118.44
  DISCCART    728750.00   4237600.00    117.06    123.22
  DISCCART    728800.00   4237600.00    116.34    123.63
  DISCCART    728850.00   4237600.00    116.05    123.83
  DISCCART    728900.00   4237600.00    115.86    135.75
  DISCCART    728950.00   4237600.00    113.50    135.94
```

```
  DISCCART    729000.00  4237600.00    118.72    135.91
  DISCCART    729050.00  4237600.00    134.23    134.47
  DISCCART    729100.00  4237600.00    135.37    135.37
  DISCCART    729150.00  4237600.00    135.38    135.38
  DISCCART    729200.00  4237600.00    135.47    135.47
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
  SURFFILE HERCILX-ONSITE-08-10.sfc
  PROFFILE HERCILX-ONSITE-08-10.PFL
  SURFDATA 3960 2008
  UAIRDATA 4833 2008
  SITEDATA 99999 2008
  PROFBASE 126 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
  RECTABLE ALLAVE 4-20
OU MAXDCONT ALL 4 THRESH 50 MAXDCONT_MONITORFINEGRID-08-10-ALL-ACTUALS-
Am-11-13CEMS.DAT
OU PLOTFILE 1 ALL 4TH 01H4ALLMONFINEGRID-Allsource-Am11-13CEMS.PLT
OU FINISHED
**
```

Portion of corresponding plotfile to above input file is included below:

```
* AERMOD ( 14134): SO2 Jefferson NAA Attainment Demo Modeling All Sources at Actuals wi     05/19/15
* AERMET ( 14134):                                                                          14:17:35
* MODELING OPTIONS USED:  RegDFAULT CONC      ELEV
*       PLOT FILE OF   4TH-HIGHEST MAX DAILY  1-HR VALUES AVERAGED OVER   3 YEARS FOR
SOURCE GROUP: ALL
*       FOR A TOTAL OF   676 RECEPTORS.
*       FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,A5,5X,A8,2X,10(F13.5,2X,I8.8,2X:))
```

```
*       X           Y      AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE     GRP       RANK     NET ID
AVER CONC YR1  DATE YR1  AVER CONC YR2  DATE YR2  AVER CONC YR3  DATE YR3
* ____________ ____________ ____________  ______  ______  ______ ______ ________ ________
_________ _____________ ________ _____________ ________ _____________ ________
  728550.00000 4237600.00000     83.63962   117.48   151.33     0.00   1-HR  ALL       4TH                98.61298
08103108      80.63409  09022509      71.67179  10121015
  728600.00000 4237600.00000     83.89512   117.06   151.33     0.00   1-HR  ALL       4TH                99.42145
08103108      80.79723  09022509      71.46666  10011812
  728650.00000 4237600.00000     84.20731   118.65   151.33     0.00   1-HR  ALL       4TH               100.44046
08103108      80.58565  09112712      71.59583  10011812
  728700.00000 4237600.00000     84.33650   118.44   118.44     0.00   1-HR  ALL       4TH               101.22247
08103108      80.14266  09112712      71.64437  10011812
  728750.00000 4237600.00000     84.36936   117.06   123.22     0.00   1-HR  ALL       4TH               101.83458
08103108      79.63498  09112712      71.63853  10011812
  728800.00000 4237600.00000     84.43401   116.34   123.63     0.00   1-HR  ALL       4TH               102.49413
08103108      79.15267  09112712      71.65523  10011812
  728850.00000 4237600.00000     84.51405   116.05   123.83     0.00   1-HR  ALL       4TH               103.17362
08103108      78.68390  09112712      71.68463  10011812
  728900.00000 4237600.00000     84.58523   115.86   135.75     0.00   1-HR  ALL       4TH               103.83013
08103108      78.21270  09112712      71.71287  10011812
  728950.00000 4237600.00000     84.67068   113.50   135.94     0.00   1-HR  ALL       4TH               104.18180
08103108      78.18487  09121709      71.64538  10011812
  729000.00000 4237600.00000     85.43893   118.72   135.91     0.00   1-HR  ALL       4TH               105.44886
08103108      78.97844  09121709      71.88948  10011812
  729050.00000 4237600.00000     85.48962   134.23   134.47     0.00   1-HR  ALL       4TH               105.22405
08103108      79.11856  09121709      72.12625  10011812
  729100.00000 4237600.00000     85.67527   135.37   135.37     0.00   1-HR  ALL       4TH               105.53359
08103108      79.36370  09121709      72.12851  10011812
  729150.00000 4237600.00000     85.94860   135.38   135.38     0.00   1-HR  ALL       4TH               106.02653
08103108      79.68246  09121709      72.13682  10011812
  729200.00000 4237600.00000     86.19076   135.47   135.47     0.00   1-HR  ALL       4TH               106.46231
08103108      79.97126  09121709      72.13871  10011812
  729250.00000 4237600.00000     86.51271   135.06   135.06     0.00   1-HR  ALL       4TH               106.95665
08103108      80.27932  09121709      72.30217  10091512
  729300.00000 4237600.00000     86.82460   135.14   135.14     0.00   1-HR  ALL       4TH               107.30859
08103108      80.52084  09121709      72.64437  10012710
  729350.00000 4237600.00000     87.32881   134.59   134.59     0.00   1-HR  ALL       4TH               107.74467
08103108      80.79231  09121709      73.44945  10030709
  729400.00000 4237600.00000     87.99794   130.64   134.61     0.00   1-HR  ALL       4TH               107.72359
08050913      81.34320  09121709      74.92704  10030709
  729450.00000 4237600.00000     88.52836   124.84   134.85     0.00   1-HR  ALL       4TH               107.10491
08050913      81.93502  09121709      76.54514  10030709
  729500.00000 4237600.00000     88.68798   128.06   128.53     0.00   1-HR  ALL       4TH               106.84765
08050913      81.90132  09022509      77.31497  10030709
  729550.00000 4237600.00000     88.77597   124.44   124.44     0.00   1-HR  ALL       4TH               105.93150
08050913      81.78529  09022509      78.61111  10030709
  729600.00000 4237600.00000     88.28772   116.97   128.81     0.00   1-HR  ALL       4TH               104.59587
08050913      81.16177  09022509      79.10552  10030709
```

729650.00000 4237600.00000 88.17655 117.00 172.81 0.00 1-HR ALL 4TH 103.97307
08050913 80.99672 09022509 79.55985 10110710
729700.00000 4237600.00000 88.20572 120.91 166.79 0.00 1-HR ALL 4TH 103.69527
08050913 81.05776 09022509 79.86414 10110710
729750.00000 4237600.00000 88.04151 122.24 173.10 0.00 1-HR ALL 4TH 103.14545
08050913 80.93715 09022509 80.04192 10110710
729800.00000 4237600.00000 88.23933 122.12 173.19 0.00 1-HR ALL 4TH 103.86786
08091117 80.70587 09022509 80.14426 10110710
728550.00000 4237650.00000 83.72371 117.54 151.33 0.00 1-HR ALL 4TH 99.19363
08103108 80.64596 09022509 71.33152 10011812
728600.00000 4237650.00000 83.94513 117.48 151.33 0.00 1-HR ALL 4TH 100.01955
08103108 80.42371 09112712 71.39215 10011812
728650.00000 4237650.00000 84.16588 118.56 151.33 0.00 1-HR ALL 4TH 100.95419
08103108 80.04805 09112712 71.49541 10011812
728700.00000 4237650.00000 84.31913 118.86 118.86 0.00 1-HR ALL 4TH 101.77072
08103108 79.62574 09112712 71.56094 10011812
728750.00000 4237650.00000 84.38088 118.06 118.06 0.00 1-HR ALL 4TH 102.42534
08103108 79.14229 09112712 71.57502 10011812
728800.00000 4237650.00000 84.40170 116.89 116.89 0.00 1-HR ALL 4TH 103.00227
08103108 78.63441 09112712 71.56841 10011812
728850.00000 4237650.00000 84.45385 116.38 116.38 0.00 1-HR ALL 4TH 103.62590
08103108 78.15145 09112712 71.58420 10011812
728900.00000 4237650.00000 84.67841 116.06 135.75 0.00 1-HR ALL 4TH 104.23852
08103108 78.19411 09121709 71.60261 10011812
728950.00000 4237650.00000 84.84666 113.93 135.94 0.00 1-HR ALL 4TH 104.58848
08103108 78.41110 09121709 71.54041 10011812
729000.00000 4237650.00000 85.49467 117.91 135.94 0.00 1-HR ALL 4TH 105.66775
08103108 79.08869 09121709 71.72758 10011812
729050.00000 4237650.00000 85.62797 133.92 133.92 0.00 1-HR ALL 4TH 105.58144
08103108 79.30579 09121709 71.99668 10011812
729100.00000 4237650.00000 85.72754 135.75 135.75 0.00 1-HR ALL 4TH 105.72152
08103108 79.47375 09121709 71.98737 10011812
729150.00000 4237650.00000 85.98120 135.76 135.76 0.00 1-HR ALL 4TH 106.17949
08103108 79.77287 09121709 71.99125 10011812
729200.00000 4237650.00000 86.27501 135.50 135.50 0.00 1-HR ALL 4TH 106.64979
08103108 80.07154 09121709 72.10371 10091512
729250.00000 4237650.00000 86.60166 135.28 135.28 0.00 1-HR ALL 4TH 107.06977
08103108 80.34300 09121709 72.39221 10012710
729300.00000 4237650.00000 87.04850 134.95 134.95 0.00 1-HR ALL 4TH 107.46847
08103108 80.59951 09121709 73.07753 10030709

Doe Run Herculaneum 2011 Actual Emissions Baseline Scenario

This scenario includes only Doe Run Herculaneum at 2011 reported actual emission rates and approximated fugitive emissions to establish baseline conditions as when designations were made for the area. Fugitive emissions were approximated through several iterations using actual emissions and onsite meteorology to compare modeled concentrations with monitored

concentrations. The best fit fugitive emissions, using professional judgment, are included in the input file below. The same receptor grid and meteorological data were used for this scenario as for the previous monitor centric scenarios; therefore, only excerpts are included below.

```
**Exploratory Modeling
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE MOTT ST MONITOR FINE GRID WITH HERC 11 ACTUALS Using APPROXIMATE
ACTUAL FUGITIVE EMISSIONS
   MODELOPT DFAULT CONC
   AVERTIME 1
   POLLUTID SO2
   RUNORNOT RUN
   ERRORFIL JeffersonCountyNAA.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
SO LOCATION DH059  POINT 729534.251 4237964.469 131.25
SO LOCATION DH020B POINT 729534.251 4237964.469 131.25
SO LOCATION DH033  POINT 729534.251 4237964.469 131.25
SO LOCATION DH039  POINT 729534.251 4237964.469 131.25
SO LOCATION DH040  POINT 729534.251 4237964.469 131.25
SO LOCATION DH199  VOLUME 729534.251 4237964.469 131.25
SO LOCATION 20006  VOLUME  729546  4237904  132
SO LOCATION 20007    Volume  729540  4237699  132
SO LOCATION 30002    Volume  729583  4237960  130
SO LOCATION 30011_13 Volume  729524  4237982  133

SO SRCPARAM   DH059   437.796648   167.68  349.8166667   17.70888   6.097560976
SO SRCPARAM   DH020B  0.07841472   9.14   287.0388889   6.43128   0.304878049
SO SRCPARAM   DH033   0.00034209   9.45   453.7055556   9.93648   0.914634146
SO SRCPARAM   DH039   0.00021848   16.76  453.7055556   9.93648   1.219512195
SO SRCPARAM   DH040   0.00021848   16.76  453.7055556   9.93648   1.219512195
SO SRCPARAM   DH199   0.07841472    5     1.1628        4.651
```

```
** fugitive emission distributed 25% & 75%
**TO TRY AND APPROX ACTUAL FUGITIVES CAPTURED BY THE MONITOR, BELOW ARE SOME SCENARIOS AIMED AT APPROXIMATING THE ACTUAL FUGITIVES RELEASED
**ORIGINAL CALCULATED FUGITIVES
**SO SRCPARAM 20006     5.5  20    0.2    18
**SO SRCPARAM 20007     5.0   21.3  0.3    10.1
**SO SRCPARAM 30002     15.75   9.3   18.6   8.65
**SO SRCPARAM 30011_13  15.75  21.3  0.3    12.7
**QUARTER OF ORIGINAL
**SO SRCPARAM 20006     1.375  20    0.2    18
**SO SRCPARAM 20007     1.25   21.3  0.3    10.1
**SO SRCPARAM 30002     3.9375   9.3   18.6   8.65
**SO SRCPARAM 30011_13  3.9375  21.3  0.3    12.7
**SIXTH OF ORIGINAL
**SO SRCPARAM 20006     0.9166  20    0.2    18
**SO SRCPARAM 20007     0.8333   21.3  0.3    10.1
**SO SRCPARAM 30002     2.625   9.3   18.6   8.65
**SO SRCPARAM 30011_13  2.625  21.3  0.3    12.7
**EIGHTH OF ORIGINAL
**SO SRCPARAM 20006     0.6875  20    0.2    18
**SO SRCPARAM 20007     0.625   21.3  0.3    10.1
**SO SRCPARAM 30002     1.96875   9.3   18.6   8.65
**SO SRCPARAM 30011_13  1.96875  21.3  0.3    12.7
**TENTH OF ORIGINAL
**SO SRCPARAM 20006     0.55  20    0.2    18
**SO SRCPARAM 20007     0.5   21.3  0.3    10.1
**SO SRCPARAM 30002     1.575   9.3   18.6   8.65
**SO SRCPARAM 30011_13  1.575  21.3  0.3    12.7
**20th of Original
SO SRCPARAM 20006     0.275  20    0.2    18
SO SRCPARAM 20007     0.25   21.3  0.3    10.1
SO SRCPARAM 30002     0.7875   9.3   18.6   8.65
SO SRCPARAM 30011_13  0.7875  21.3  0.3    12.7
**SO HOUREMIS HERC-HOURLY-EMIS-FILE-11-13.txt DH059 DH020B DH033 DH039 DH040 DH199 20006 20007 30002 30011_13

  BACKGRND ANNUAL 9.0
  BACKUNIT PPB

SO SRCGROUP  Herc DH059 DH020B DH033 DH039 DH040 DH199
SO SRCGROUP  vol20006  20006
SO SRCGROUP  vol20007  20007
SO SRCGROUP  vol30002  30002
SO SRCGROUP  vol30011 30011_13
```

```
SO SRCGROUP  ALL  BACKGROUND
SO FINISHED

RE STARTING
** AERMAP - VERSION 11103                                    10/23/14
**                                          13:08:24
**  JEFFERSON COUNTY COURSE GRID
**
** A total of      13  NED files were used
** A total of     676  receptors were processed
** DOMAINXY 680000 4200000 15 780000 4300000 15
** ANCHORXY  680000 4200000 680000 4200000 15 4
** Terrain heights were extracted by default
```

ONLY PORTION OF RECEPTORS INCLUDED BELOW

```
  RE ELEVUNIT METERS
   DISCCART    728550.00   4237600.00    117.48    151.33
   DISCCART    728600.00   4237600.00    117.06    151.33
   DISCCART    728650.00   4237600.00    118.65    151.33
   DISCCART    728700.00   4237600.00    118.44    118.44
   DISCCART    728750.00   4237600.00    117.06    123.22
   DISCCART    728800.00   4237600.00    116.34    123.63
   DISCCART    728850.00   4237600.00    116.05    123.83
   DISCCART    728900.00   4237600.00    115.86    135.75
RE FINISHED

**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE HERCILX-ONSITE-08-10.SFC
   PROFFILE HERCILX-ONSITE-08-10.PFL
   SURFDATA 3960 2008
   UAIRDATA 4833 2008
   SITEDATA 99999 2008
   PROFBASE 126 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
```

```
**
OU STARTING
  RECTABLE ALLAVE 4
OU PLOTFILE 1 ALL 4TH 01H4ALLMONFINEGRID-HERC-11-FUGITIVE.PLT
OU FINISHED
```

Portion of corresponding plotfile included below.

```
* AERMOD ( 14134): MOTT ST MONITOR FINE GRID WITH HERC 11 ACTUALS Using
APPROXIMATE ACT     04/29/15
* AERMET ( 14134):                                                    08:42:35
* MODELING OPTIONS USED:  RegDFAULT CONC      ELEV
*       PLOT FILE OF   4TH-HIGHEST MAX DAILY  1-HR VALUES AVERAGED OVER   3
YEARS FOR SOURCE GROUP: ALL
*       FOR A TOTAL OF   676 RECEPTORS.
*       FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,A5,5X,A8,2X,10(F13.5,2X,I8.8,2X:))
*       X            Y      AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE     GRP       RANK
NET ID   AVER CONC YR1  DATE YR1  AVER CONC YR2  DATE YR2  AVER CONC YR3  DATE
YR3
* ____________ ____________ ____________  ______  ______  ______  ______  ________
________  ________  _____________  ________  _____________  ________  _____________
________
  728550.00000 4237600.00000     189.13799   117.48   151.33     0.00    1-HR  ALL        4TH
191.17292  08101410      174.12781  09112012      202.11325  10011223
  728600.00000 4237600.00000     186.60552   117.06   151.33     0.00    1-HR  ALL        4TH
191.26159  08072821      166.48003  09030906      202.07496  10011223
  728650.00000 4237600.00000     187.67521   118.65   151.33     0.00    1-HR  ALL        4TH
195.55407  08101410      168.53474  09112012      198.93682  10030522
  728700.00000 4237600.00000     193.87957   118.44   118.44     0.00    1-HR  ALL        4TH
198.17203  08101410      168.15185  09120203      215.31485  10030522
  728750.00000 4237600.00000     193.92667   117.06   123.22     0.00    1-HR  ALL        4TH
198.64256  08101410      166.19802  09091020      216.93944  10100818
  728800.00000 4237600.00000     189.85083   116.34   123.63     0.00    1-HR  ALL        4TH
200.36217  08112612      159.12686  09041706      210.06346  10100818
  728850.00000 4237600.00000     199.65671   116.05   123.83     0.00    1-HR  ALL        4TH
207.43203  08052204      187.99185  09040404      203.54625  10030522
  728900.00000 4237600.00000     215.71793   115.86   135.75     0.00    1-HR  ALL        4TH
237.68754  08052203      184.63364  09070909      224.83262  10081820
  728950.00000 4237600.00000     235.52564   113.50   135.94     0.00    1-HR  ALL        4TH
239.36446  08080221      207.60103  09051120      259.61142  10081820
  729000.00000 4237600.00000     258.10701   118.72   135.91     0.00    1-HR  ALL        4TH
266.10119  08070605      227.08688  09111203      281.13297  10081820
  729050.00000 4237600.00000     393.42167   134.23   134.47     0.00    1-HR  ALL        4TH
463.91546  08090302      316.25768  09051120      400.09187  10060802
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729100.00000 4237600.00000 440.15911 135.37 135.37 0.00 1-HR ALL 4TH
485.19103 08090302 386.24866 09090824 449.03763 10081001
729150.00000 4237600.00000 503.93716 135.38 135.38 0.00 1-HR ALL 4TH
480.60932 08101423 471.38527 09090824 559.81689 10111206
729200.00000 4237600.00000 437.73433 135.47 135.47 0.00 1-HR ALL 4TH
454.70809 08090301 409.47185 09090623 449.02305 10082320
729250.00000 4237600.00000 525.69593 135.06 135.06 0.00 1-HR ALL 4TH
603.12711 08090301 497.35206 09090803 476.60860 10090902
729300.00000 4237600.00000 485.86913 135.14 135.14 0.00 1-HR ALL 4TH
496.24209 08090301 541.79166 09090324 419.57364 10082320
729350.00000 4237600.00000 514.72438 134.59 134.59 0.00 1-HR ALL 4TH
568.31793 08092222 524.58904 09021304 451.26618 10030420
729400.00000 4237600.00000 535.52171 130.64 134.61 0.00 1-HR ALL 4TH
439.90689 08090221 562.28333 09091402 604.37492 10062423
729450.00000 4237600.00000 428.99439 124.84 134.85 0.00 1-HR ALL 4TH
400.64390 08112619 427.46165 09083120 458.87763 10022521
729500.00000 4237600.00000 455.28018 128.06 128.53 0.00 1-HR ALL 4TH
476.29345 08081922 465.42969 09071222 424.11740 10072602
729550.00000 4237600.00000 404.20247 124.44 124.44 0.00 1-HR ALL 4TH
355.80929 08040206 492.90863 09052404 363.88950 10081824
729600.00000 4237600.00000 324.30608 116.97 128.81 0.00 1-HR ALL 4TH
290.82963 08082923 372.75742 09052404 309.33120 10022820
729650.00000 4237600.00000 417.51408 117.00 172.81 0.00 1-HR ALL 4TH
410.60681 08070601 441.88212 09090101 400.05332 10021201
729700.00000 4237600.00000 406.07380 120.91 166.79 0.00 1-HR ALL 4TH
408.53863 08072622 410.76525 09091005 398.91752 10082205
729750.00000 4237600.00000 357.36455 122.24 173.10 0.00 1-HR ALL 4TH
417.76850 08040204 323.55137 09082221 330.77380 10013023
729800.00000 4237600.00000 347.74152 122.12 173.19 0.00 1-HR ALL 4TH
339.73539 08082703 345.21652 09082221 358.27265 10032906
728550.00000 4237650.00000 173.41457 117.54 151.33 0.00 1-HR ALL 4TH
181.60834 08101410 158.34299 09112012 180.29238 10080614
728600.00000 4237650.00000 178.96939 117.48 151.33 0.00 1-HR ALL 4TH
183.46602 08101410 155.99660 09112012 197.44556 10011223
728650.00000 4237650.00000 183.41313 118.56 151.33 0.00 1-HR ALL 4TH
185.58024 08101410 162.33777 09120203 202.32137 10022511
728700.00000 4237650.00000 193.15387 118.86 118.86 0.00 1-HR ALL 4TH
187.57168 08101410 174.72277 09120203 217.16716 10100818
728750.00000 4237650.00000 202.90856 118.06 118.06 0.00 1-HR ALL 4TH
204.36772 08020305 180.67038 09030906 223.68758 10011223
728800.00000 4237650.00000 204.27456 116.89 116.89 0.00 1-HR ALL 4TH
198.85682 08112612 185.30683 09120203 228.66003 10030522
728850.00000 4237650.00000 203.65911 116.38 116.38 0.00 1-HR ALL 4TH
191.02912 08072821 179.35803 09120203 240.59017 10100818

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 728900.00000 4237650.00000     207.52733   116.06   135.75     0.00    1-HR  ALL        4TH
210.31869  08090120      175.70050  09041706      236.56280  10111205
 728950.00000 4237650.00000     219.44108   113.93   135.94     0.00    1-HR  ALL        4TH
229.24201  08052204      206.83094  09040404      222.25030  10080901
```