Appendix 9-8: CALPUFF Modeling Summaries

CALPUFF Exemption Report Summaries
10-1-08

Below are the file names for the source-specific modeling demonstration summaries and the corresponding source name. Please note that source names frequently change, so the ID number is the best identification (example ALCOA_INC_MM0001T). The 29 one-page summaries are in alphabetical order in one document, so you must scroll through to get to the summary of your choice.

The full modeling reports are large pdf files that TCEQ is unable to leave on the web site due to storage limitations. All files are available upon request by calling the Regional Haze SIP coordinator. Or e-mail us at siprules@tceq.state.tx.us and put the name "Regional Haze SIP" in the subject line. Request the report by its modeling summary file name: ALCOA_INC_MM0001T.doc

Page	Modeling Summary File Name	Source Name
2	ALCOA_INC_MM0001T.doc	ALCOA INC
3	ALON_USA_LP_HT0011Q.doc	ALON USA LP
4	ATOFINA_PETROCHEMICALS_INC_JE0005H.doc	ATOFINA PETROCHEMICALS INC (aka* Total Petrochemicals)
5	CABOT_CORPORATION_GH0003Q.doc	CABOT CORPORATION
6	CELANESE_CHEMICAL_GH0004O.doc	CELANESE CHEMICAL
7	DEGUSSA_ENGINEERED_CARBONS_HW0008S.doc	DEGUSSA ENGINEERED CARBONS
8	DUKE_ENERGY_FIELD_SERVICES_AB0012W.DOC	DUKE ENERGY FIELD SERVICES (aka DCP Midstream Fullerton Gas Plant)
9	EASTMAN_CHEMICAL_COMPANY_HH0042M.doc	EASTMAN CHEMICAL COMPANY
10	EI_DU_PONT_DE_NEMOURS_&_CO_VC0008Q.doc	EI DU PONT DE NEMOURS & CO/INVESTA TRANS
11	EQUISTAR_CHEMICALS_HG0033B.doc	EQUISTAR CHEMICALS
12	EXXONMOBIL_CORP_HG0232Q.doc	EXXONMOBIL CORP
13	EXXONMOBIL_OIL_CORP_JE0067I.doc	EXXONMOBIL OIL CORP
14	HUNTSMAN_POLYMERS_EB0057B.doc	HUNTSMAN POLYMERS
15	INTERNATIONAL_PAPER_CO_CG0010G.doc	INTERNATIONAL PAPER CO
16	INVISTA_RN104392626.doc	INVISTA SARL
17	NORTH_TEXAS_CEMENT_COMPANY_ED0034O.doc	NORTH TEXAS CEMENT COMPANY (aka Ash Grove Texas)
18	OWENS_CORNING_ED0051O.doc	OWENS CORNING
19	PHILLIPS_66_CO_HW0018P.doc	PHILLIPS 66 CO (aka ConocoPhillips)
20	RHODIA_INC_HG0697O.doc	RHODIA INC
21	SHELL_OIL_CO_HG0659W.doc	SHELL OIL CO
22	SID_RICHARDSON_CARBON_HW0017R.doc	SID RICHARDSON CARBON
23	SID_RICHARDSON_CARBON_CO_HT0027B.doc	SID RICHARDSON CARBON CO
24	SOUTHWESTERN_ELECTRIC_POWER_TF0012D.doc	SOUTHWESTERN ELECTRIC POWER (AEP)
25	TEMPLE_INLAND_OC0019C.doc	TEMPLE-INLAND
26	TEXAS_LEHIGH_CEMENT_CO_HK0014M.doc	TEXAS LEHIGH CEMENT CO
27	TEXAS_GENCO_LP_GB0037T.doc	TEXAS GENCO LP (aka NRG Texas)
28	TXI_OPERATIONS_LP_ED0066B.doc	TXI OPERATIONS LP
29	TXU_GENERATION_COMPANY_LP_TF0013B.doc	TXU GENERATION COMPANY LP
30	WESTVACO_JC0003K.doc	WESTVACO (aka Mead Westvaco)

Note: * aka – also know as

CALPUFF BART Exemption Modeling Summary
Alcoa, Inc. – Rockdale Operations

Project Information

Account Number: MM-0001-T
Regulated Entity Number: RN100221472
Customer Reference Number: CN600130884
Nearest City, County: Rockdale, Milam

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available. For visibility impact calculations, all PM was also assumed to be organic carbon for a conservative estimate.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Alon USA, L.P.

Project Information

Account Number: HT-0011-Q
Regulated Entity Number: RN100250869
Customer Reference Number: CN600881783
Nearest City, County: Big Spring, Howard

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
TOTAL Petrochemicals USA Inc.

Project Information

Account Number: JE-0005-H
Regulated Entity Number: RN102457520
Customer Reference Number: CN600582399
Nearest City, County: Port Arthur, Jefferson

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, PM_{10}, and $PM_{2.5}$.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Cabot Corporation

Project Information

Account Number: GH-0003-Q
Regulated Entity Number: RN100221761
Customer Reference Number: CN600124911
Nearest City, County: Pampa, Gray

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Celanese Ltd.

Project Information

Account Number: GH-0004-O
Regulated Entity Number: RN101996395
Customer Reference Number: CN600130850
Nearest City, County: Pampa, Gray

Project Overview

The BART exemption modeling demonstration was conducted in two parts. The first part consisted of a CALPUFF modeling demonstration using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

The second part consisted of a refined CALPUFF modeling demonstration using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

For both modeling demonstrations, modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol.

The results from the initial modeling demonstration were used to determine the Class I areas to be considered in the refined modeling demonstration (second part). Class I areas with maximum visibility impacts greater than 0.5 dv were considered further in the refined modeling demonstration.

For the refined modeling demonstration, the maximum 98^{th} percentile visibility impacts for all Class I areas evaluated (based on initial model runs) are less than 0.5 dv.

There were some BART-eligible units not included in the modeling demonstration. Given that the total emissions from the units considered in the modeling demonstration make up 98% of the PTE, the applicant contends that the visibility impacts should not be significantly affected by not having these BART-eligible units included in the modeling demonstration. This is a reasonable conclusion.

CALPUFF BART Exemption Modeling Summary
Degussa Engineered Carbons L.P.

Project Information

Account Number: HW-0008-S
Regulated Entity Number: RN100209659
Customer Reference Number: CN600123988
Nearest City, County: Borger, Hutchinson

Project Overview

The BART exemption modeling demonstration was conducted in two parts. The first part consisted of a CALPUFF modeling demonstration using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

The second part consisted of a refined CALPUFF modeling demonstration using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

For both modeling demonstrations, modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol.

The results from the initial modeling demonstration were used to determine the Class I areas to be considered in the refined modeling demonstration (second part). Class I areas with maximum visibility impacts greater than 0.5 dv were considered further in the refined modeling demonstration.

For the refined modeling demonstration, the maximum 98^{th} percentile visibility impacts for all Class I areas evaluated (based on initial model runs) are less than 0.5 dv.

There were some BART-eligible units not included in the modeling demonstration. Given that the total emissions from the units considered in the modeling demonstration make up 98% of the PTE, the applicant contends that the visibility impacts should not be significantly affected by not having these BART-eligible units included in the modeling demonstration. This is a reasonable conclusion.

CALPUFF BART Exemption Modeling Summary
DCP Midstream Fullerton Gas Plant

Project Information

Account Number: AB-0012-W
Regulated Entity Number: RN100218684
Customer Reference Number: CN601229917
Nearest City, County: Andrews, Andrews

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Eastman Chemical Company

Project Information

Account Number: HH-0042-M
Regulated Entity Number: RN100219815
Customer Reference Number: CN601214406
Nearest City, County: Longview, Harrison

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Invista S.AR.L

Project Information

Account Number: VC-0008-Q
Regulated Entity Number: RN102663671
Customer Reference Number: CN602582231
Nearest City, County: Victoria, Victoria

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum 98^{th} percentile visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Equistar Chemicals

Project Information

Account Number: HG-0033-B
Regulated Entity Number: RN100542281
Customer Reference Number: CN600124705
Nearest City, County: Channelview, Harris

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available. For visibility impact calculations, PM was further speciated into SO_4, elemental carbon, organic carbon, and NO_3 using data from SMOKE and SCC identifications.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, APPEND, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum 98^{th} percentile visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
ExxonMobil Baytown Refinery

Project Information

Account Number: HG-0232-Q
Regulated Entity Number: RN102579307
Customer Reference Number: CN600123939
Nearest City, County: Baytown, Harris

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available. For visibility impact calculations, PM was further speciated into SO_4, elemental carbon, organic carbon, and NO_3 using data from SMOKE and SCC identifications.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, APPEND, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum 98^{th} percentile visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
ExxonMobil Beaumont Refinery

Project Information

Account Number: JE-0067-I
Regulated Entity Number: RN102450756
Customer Reference Number: CN600920748
Nearest City, County: Beaumont, Jefferson

Project Overview

The BART exemption modeling demonstration was conducted in two parts. The first part consisted of a CALPUFF modeling demonstration using pre-BART emission rates. The second part consisted of a CALPUFF modeling demonstration using post-BART emission rates.

The CALPUFF modeling demonstrations were conducted using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available. For visibility impact calculations, PM was further speciated into SO_4, elemental carbon, organic carbon, and NO_3 using data from SMOKE and SCC identifications.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, APPEND, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum 98^{th} percentile visibility impacts from the post-BART emission rate demonstration for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Huntsman Polymers Corporation

Project Information

Account Number: EB-0057-B
Regulated Entity Number: RN101867554
Customer Reference Number: CN600132104
Nearest City, County: Odessa, Ector

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available. For visibility impact calculations, PM was further speciated into SO_4, elemental carbon, organic carbon, and NO_3 using data from SMOKE and SCC identifications.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, APPEND, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
International Paper Co.

Project Information

Account Number: CG-0010-G
Regulated Entity Number: RN100543115
Customer Reference Number: CN601047830
Nearest City, County: Queen City, Cass

Project Overview

The BART exemption modeling demonstration was conducted in two parts. The first part consisted of a CALPUFF modeling demonstration using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

The second part consisted of a refined CALPUFF modeling demonstration using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

For both modeling demonstrations, modeling was conducted for SO_2, SO_4, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol.

The results from the initial modeling demonstration were used to determine the Class I areas to be considered in the refined modeling demonstration (second part). Of the 16 Class I areas evaluated in the initial modeling demonstration (based on TCEQ CAMx model runs), two had maximum impacts greater than 0.5 dv and one was not considered in the refined modeling demonstration. Given that the Class I area is in the same general direction as the Class I area evaluated in the refined modeling demonstration, but located a greater distance from the source, and that only the maximum impact was greater than 0.5 dv, the applicant has focused their resources on the one Class I area that is closer and had higher predicted visibility impacts. The applicant contends that if the visibility impacts are less than 0.5 dv in the refined modeling demonstration for the one Class I area evaluated, then the impacts would also be acceptable for the other distant Class I areas. This is a reasonable approach.

For the refined modeling demonstration, the maximum 98^{th} percentile visibility impacts for all Class I areas evaluated (based on initial model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Invista S.AR.L

Project Information

Account Number: No account number
Regulated Entity Number: RN104392626
Customer Reference Number: CN602582231
Nearest City, County: Orange, Orange

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum 98^{th} percentile visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Ash Grove Texas, L.P.

Project Information

Account Number: ED-0034-O
Regulated Entity Number: RN100225978
Customer Reference Number: CN600132161
Nearest City, County: Midlothian, Ellis

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

Modeling was conducted for SO_2, SO_4, NO_x, elemental carbon, organic carbon, PM_{10}, and $PM_{2.5}$.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, APPEND, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum 98^{th} percentile visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Owens Corning Insulating System, LLC

Project Information

Account Number: ED-0051-O
Regulated Entity Number: RN100223585
Customer Reference Number: CN600124838
Nearest City, County: Waxahachie, Ellis

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, PM_{10}, and $PM_{2.5}$.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
ConocoPhillips – Borger Refinery

Project Information

Account Number: HW-0018-P
Regulated Entity Number: RN102495884
Customer Reference Number: CN601674351
Nearest City, County: Borger, Hutchinson

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Rhodia, Inc. – Houston Plant

Project Information

Account Number: HG-0697-O
Regulated Entity Number: RN100220581
Customer Reference Number: CN600125330
Nearest City, County: Houston, Harris

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, SO_4, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

There were some BART-eligible units not included in the modeling analysis. Given the distance to the nearest Class I area (520 km to CACR), the relatively small total emission rate (PM_{10} – 8.64 lb/hr), and the maximum visibility impact (0.24 dv), the applicant contends that the visibility impacts should not be significantly affected by not having these BART-eligible units included in the modeling demonstration. This is a reasonable conclusion.

CALPUFF BART Exemption Modeling Summary
Shell Chemical

Project Information

Account Number: HG-0659-W
Regulated Entity Number: RN100211879
Customer Reference Number: CN601542012
Nearest City, County: Deer Park, Harris

Project Overview

The BART exemption modeling demonstration was conducted in two parts. The first part consisted of a CALPUFF modeling demonstration using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

The second part consisted of a refined CALPUFF modeling demonstration using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

For both modeling demonstrations, modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol.

The results from the initial modeling demonstration were used to determine the Class I areas to be considered in the refined modeling demonstration (second part). Of the 16 Class I areas evaluated in the initial modeling demonstration (based on TCEQ CAMx model runs), six had maximum impacts greater than 0.5 dv and four were not considered in the refined modeling demonstration. Given the distance to the four Class I areas (> 600 km), and that only their maximum impact was greater than 0.5 dv, the applicant has focused their resources on the two other Class I areas that are closer and had higher predicted visibility impacts. The applicant contends that if the visibility impacts are less than 0.5 dv in the refined modeling demonstration for the two Class I areas evaluated, then the impacts would also be acceptable for the other four distant Class I areas. This is a reasonable approach.

For the refined modeling demonstration, the maximum 98^{th} percentile visibility impacts for all Class I areas evaluated (based on initial model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Sid Richardson Carbon, Ltd.

Project Information

Account Number: HT-0027-B
Regulated Entity Number: RN100226026
Customer Reference Number: CN600131171
Nearest City, County: Big Spring, Howard

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Sid Richardson Carbon Company

Project Information

Account Number: HW-0017-R
Regulated Entity Number: RN100222413
Customer Reference Number: CN600131171
Nearest City, County: Borger, Hutchinson

Project Overview

The BART exemption modeling demonstration was conducted in two parts. The first part consisted of a CALPUFF modeling demonstration using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

The second part consisted of a refined CALPUFF modeling demonstration using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

For both modeling demonstrations, modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol.

The results from the initial modeling demonstration were used to determine the Class I areas to be considered in the refined modeling demonstration (second part). Class I areas with maximum visibility impacts greater than 0.5 dv were considered further in the refined modeling demonstration.

For the refined modeling demonstration, the maximum 98^{th} percentile visibility impacts for all Class I areas evaluated (based on initial model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
American Electric Power (AEP) - Southwestern Electric Power Company

Project Information

Account Number: TF-0012-D
Regulated Entity Number: RN100213370
Customer Reference Number: CN600126767
Nearest City, County: Pittsburgh, Titus

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for PM_{10} and $PM_{2.5}$ since the source is an EGU (BART rule exemption lists SO_2 and NO_x from EGUs are covered by CAIR).

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts at CACR (Class I area evaluated based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Temple-Inland

Project Information

Account Number: OC-0019-C
Regulated Entity Number: RN100214428
Customer Reference Number: CN602787053
Nearest City, County: Orange, Orange

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
Texas Lehigh Cement Company, L.P.

Project Information

Account Number: HK-0014-M
Regulated Entity Number: RN102597846
Customer Reference Number: CN600127666
Nearest City, County: Buda, Hays

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, NO_x, and PM. All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
NRG Texas, L.P. (P.H. Robinson Electric Generating Station)

Project Information

Account Number: GB-0037-T
Regulated Entity Number: RN101062826
Customer Reference Number: CN602755415
Nearest City, County: Bacliff, Galveston

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for PM since the source is an EGU (BART rule exemption lists SO_2 and NO_x from EGUs are covered by CAIR). All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for a subset of Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv. The remaining Class I areas are in the same general direction as the Class I areas evaluated, but located at greater distances from the source. Since chemistry is not considered in the PM modeling, the applicant contends that visibility impacts for the more distant Class I areas will be less than the visibility impacts of the Class I areas evaluated. This is a reasonable approach.

CALPUFF BART Exemption Modeling Summary
TXI Operations, L.P.

Project Information

Account Number: ED-0066-B
Regulated Entity Number: RN100217199
Customer Reference Number: CN600125157
Nearest City, County: Midlothian, Ellis

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CALMET data. The three-year CALMET dataset was developed using observational meteorological data along with prognostic modeling data from MM5. CALMET model option selections are consistent with representations made in the modeling report.

Modeling was conducted for SO_2, NO_x, PM_{10}, and $PM_{2.5}$.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, APPEND, CALSUM, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum 98^{th} percentile visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
TXU Energy (Monticello Facility)

Project Information

Account Number: TF-0013-B
Regulated Entity Number: RN102285921
Customer Reference Number: CN600135511
Nearest City, County: Mount Pleasant, Titus

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for PM since the source is an EGU (BART rule exemption lists SO_2 and NO_x from EGUs are covered by CAIR). All PM was assumed to be $PM_{2.5}$ since the applicant did not have particle size or speciation data available.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts at CACR (Class I area evaluated based on TCEQ CAMx model runs) are less than 0.5 dv.

CALPUFF BART Exemption Modeling Summary
MeadWestvaco Texas, L.P.

Project Information

Account Number: JC-0003-K
Regulated Entity Number: RN102157609
Customer Reference Number: CN601549496
Nearest City, County: Evadale, Jasper

Project Overview

A CALPUFF modeling demonstration was conducted using three years of CENRAP-developed CALMET data. The three-year CALMET dataset was developed using only prognostic modeling data from MM5 ("No Obs" mode).

Modeling was conducted for SO_2, SO4, NO_x, NO_3, PM_{10}, $PM_{2.5}$, elemental carbon, and organic carbon.

The modeled source parameters and emission rates are consistent with data in the modeling report. CALPUFF, POSTUTIL, and CALPOST model option selections are consistent with representations made in the modeling report and the TCEQ BART Modeling Protocol. The maximum visibility impacts for all Class I areas evaluated (based on TCEQ CAMx model runs) are less than 0.5 dv.