Texas Commission on Environmental Quality
Form BART EA-1 - Instructions
Engineering Analysis
Best Available Retrofit Technology

General:

In accordance with Title 30 Texas Administrative Code (30 TAC) Section 116.1500-1540, sites subject to the Best Available Retrofit Technology (BART) requirements must provide an Engineering Analysis (EA) by completing and submitting Form BART EA-1, with its completed Tables 1-8, to the Texas Commission on Environmental Quality's (TCEQ) Air Permits Division (see Section III of this form, *Guidelines for Engineering Analysis Submittals*, for table nomenclature and completion guidance). All sites subject to BART requirements must submit their EA no later than April 30, 2007. To establish enforceable limits on emissions pursuant to the requirements of (proposed) 30 TAC § 116.1530(b), applicants should submit a completed Form APD-CERT entitled, "Certification of Emission Limits." Enforceability of BART emissions may also be established by initiating or providing documentation of other appropriate permitting actions. The owner/operator of the site for which BART EA is being submitted is responsible for completing the necessary forms and mailing them to the TCEQ, Air Permits Division (APD), MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

I. Company Identifying Information

A. Company Name: Enter the legal name of the company or corporation for which the EA is being submitted. The company name on this form and the TCEQ Core Data Form should match.

B. Owner or Operator of Site to be Certified: Enter the name of the owner/operator of the site for which the EA is being submitted.

C. Mailing Address: Enter the mailing address for the owner/operator of the site.

D. City/State/Zip Code: Enter the name of the city or town, state and zip code for the mailing address.

E. Telephone: Enter the telephone number for the owner/operator of the site; include area code.

F. Site Name: Provide the name of the site for which the EA is being submitted.

G. Street Address (Physical Location): Provide the street address of the physical location for the named site. If no street address is available, provide driving directions in writing. Identify the location by distance and direction from well-known landmarks such as highway intersections.

H. City/County/Zip Code: Provide the name of the town or city in which the site is located. If the address is not in a city or town, provide the name of the city or town closest to the site even if this city/town is not located in the same county as the site. Enter the County and zip code where the site is physically located.

I. TCEQ Regulated Entity Number (RN): Enter the TCEQ assigned number of the site for which the EA is being submitted. The RN replaces the former TCEQ account number for the facility or site. A typical example of a RN is RN100123456. These identification numbers have recently been assigned by the TCEQ, replacing the air quality account number. If you have not been officially notified by the TCEQ Central Registry Program of the RN, or have any questions about your RN, you may call (512) 239-5160 for assistance to obtain or verify the account number. If no regulated entity number has been issued for this location please check "NO".

J. TCEQ Customer Number (CN): Enter the TCEQ assigned number of the owner or operator of the site. The CN is a unique number assigned to the company or corporation and applies to all facilities and sites owned or operated by this company or corporation. A typical example of a CN is CN600123456. These identification numbers have recently been assigned by the TCEQ, replacing the air quality account number. If you have not been officially notified by the TCEQ Central Registry Program of your CN, or have any questions about your CN, you may call (512) 239-5160 for assistance to obtain or verify the account number. If no customer number has been issued for this location please check "NO."

II. Technical Contact Identifying Information

A. Technical Contact: Provide the title and name of the person that TCEQ should contact for technical questions and who has the authority to make binding agreements and representations.

B. Title: Provide the title of the technical contact.

C. Telephone: Provide the telephone number of the technical contact.

D. Fax: Provide the fax number for the technical contact.

E. E-Mail: Provide the e-mail address for the technical contact.

F. Mailing Address: Provide mailing address for the technical contact.

G. City/State/Zip Code: Provide city, state and zip code of the technical contact. This technical contact may be a consultant.

III. Guidelines for Engineering Analysis Submittals

Provide the information indicated by instructions and data fields on the applicable tables of the form and by pertinent sections of the guidance document. The indicated organizational format is suggested.

Executive Summary: Provide an identification overview and description of the BART-eligible emission units at the facility; summarize the BART analysis methods used in their evaluation.

Table 1: Summary of Proposed BART - Provide emission unit identification, proposed BART and emission limits, pollutants controlled, visibility improvements and affected Class I areas.

BART-Eligible Units Subject to Maximum Achievable Control Technology (MACT) Standards

Table 2: MACT as BART for Eligible Units - Describe BART-eligible units to which MACT standard applies that also addresses visibility impairing pollutant. Provide emission unit number and description, the regulated pollutant, the applicable MACT limit as provided in the standard and expressed in pounds/day of regulated pollutant. Provide the rationale for why the MACT limit represents BART.

Baseline Conditions and Visibility Impacts for BART-Eligible Units

Table 3: Input Data: Baseline Modeling Conditions - Provide emission unit identifying information and descriptions, also maximum 24 hr. actual emissions (lb/day) for each BART pollutant evaluated at each emission unit. Provide stack identification, physical and exit parameters.

Table 4: Basis for 24 hr. Emissions Data - Describe in detail the basis for 24 hr. actual emissions data submitted for Tables 3, 6, 7, and 8. To support data field entries, provide documentation of baseline data sources and assumptions considered. For example, if stack test data was used, include the date of the test and the fuel type used in the test.

Table 5: Baseline Visibility Results - Provide the results of the baseline visibility modeling for each evaluated emission unit and affected Class I Area, in terms of the 98th %-ile value (i.e., deciview) and the number of days exceeding 0.5 deciview, for the baseline years 2001 through 2003 and for these years combined. Facilities may provide additional information about visibility modeling results and improvements (e.g., number of days exceeding 1 deciview, number of affected receptors, etc.) as an attachment to this table.

BART Analysis for Eligible Emission Units

This analysis should be conducted for each BART-subject emission unit at the facility, and should include each visibility-impairing pollutant (i.e., NOx, SO2, PM) emitted from each evaluated emission unit. Applicants should consult the guidance document for details on consideration of various steps of the analysis.

Table 6: Post-Control Emission Rates - Provide the post-control emission rates for each control scenario evaluated for each emission unit and visibility impairing pollutant. Results are provided in terms of specific control technologies, maximum 24 hr. actual emissions and % reductions for the pollutant being evaluated. Potential collateral increases as well as the %-reductions in emissions of the other visibility-impairing pollutants are also provided. A separate Table 6 should be completed and submitted for each visibility impairing pollutant emitted (e.g., Table 6-NOx) from each BART - subject emission unit for which a control scenario is evaluated.

Table 7: Post-Control Stack Parameters - Provide the post-control stack identification, physical and exit parameters for each control scenario evaluated for emission unit and visibility impairing pollutant. A separate Table 7 should be completed and submitted for each visibility impairing pollutant emitted (e.g., Table 7-NOx) from each BART-subject emission unit for which a control scenario is evaluated.

Table 8: Post-Control Visibility Results - Provide the results of the post-control visibility modeling for each control scenario evaluated for each emission unit and affected Class I Area, in terms of the 98th %-ile value (i.e., deciview) and the number of days exceeding 0.5 deciview, for the baseline years 2001 through 2003 and for these years combined. A separate Table 8 should be completed and submitted for each visibility impairing pollutant emitted (e.g., Table 8-NOx) from each BART - subject emission unit for which a control scenario is evaluated.

BART Analysis Conclusion

BART Proposal: Propose the selected control strategy; include justification for the selected strategy and proposed compliance schedules.

***Impacts Analysis Summary*:** Provide a summary of all control strategies evaluated for each unit and visibility impairing pollutant. Consider emission reduction performance level, baseline emission rates, and anticipated emission reductions. Also summarize the analysis in terms of total annualized control, average and incremental cost effectiveness, energy costs, collateral increases in other pollutants, and non-air quality environmental effects.

IV. Signature and Certification

Owner/operator of the facility provides signature to certify that factual knowledge provided on the form is true and correct, and not in any way a violation of 30 TAC §§ 101.390-101.403, or of any other applicable air quality rule of the Texas Commission on Environmental Quality; signature further signifies awareness that intentionally or knowingly making or causing to be made false material statements or representations in the certification is a criminal offense subject to criminal penalties.

Note: Signatures must be original in ink, not reproduced by photocopy, fax, or other means, and must be received by the TCEQ prior to allocation of any allowances.

How to Contact the TCEQ:

Question	Who	Phone	Web
TCEQ PBR Rules	Air Permits Division	(512) 239-1250	www.tceq.state.tx.us/rules/indxpdf.html
Revenue Section	Financial Administration	(512) 239-6260	(TCEQ Mail Code 181)
Core Data Form Requirements	Central Registry	(512) 239-5175	www.tceq.state.tx.us/permitting/central_registry/contact.html
Form PI-7 Requirements	Air Permits Division	(512) 239-1250	www.tceq.state.tx.us/permitting/air/forms/permitbyrule/pbr_PI7_forms.html
Receipt and Initial Review	Air Permits Initial Review Team (APIRT)	(512) 239-5160	www.tceq.state.tx.us/nav/data/permit_data.html
PBR Guidance and Checklists	Air Permits Division	(512) 239-1250	www.tceq.state.tx.us/permitting/air/nav/air_pbr.html
Confidential Information	Office of Legal Services	written requests	(TCEQ Mail Code 173)
Emissions Cap and Trade Program	Banking & Trading Team, Air Permits Division	(512) 239-1255	www.tceq.state.tx.us/permitting/air/nav/air_banking.html
Federal Operating Permits	Air Permits Division	(512) 239-1250	www.tceq.state.tx.us/nav/permits/air_permits.html
Small Business Assistance	Small Business and Local Government Assistance	(800) 447-2827	www.tceq.state.tx.us/assistance/sblga/sblga.html

Form BART EA-1 (Page 1)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code § 116.1500-40)

I.	**Company Identifying Information**		
A.	Company Name:		
B.	Owner or Operator of Site to be Certified:		
C.	Mailing Address:		
D.	City:	State:	Zip Code:
E.	Telephone:		
F.	Site Name:		
G.	Street Address of Physical Location:		
H.	Nearest City:	County:	Zip Code:
I.	Regulated Entity No.:		❒ NO
J.	Customer Number:		❒ NO
II.	**Technical Contact Identifying Information**		
A.	Technical Contact: (❒ Mr. ❒ Ms. ❒ Dr.)		
B.	Title:		
C.	Telephone No.:	D. Fax No.:	E. E-Mail:
F.	Mailing Address:		
G.	City:	State:	Zip Code:
III.	**Engineering Analysis**		
Provide the information indicated by the instructions (Section III, Engineering Analysis Submittals) and as indicated by pertinent sections of the guidance document.			
IV.	**Signature and Certification**		

I,_____
(Name/Title - Please print or type)

state that I have knowledge of the facts herein set forth and that the same are true and correct to the best of my knowledge and belief the information in this certification is not in any way in violation of 30 Texas Administrative Code §§ 101.390 - 101.403 or any applicable air quality rule or regulation of the Texas Commission on Environmental Quality and that intentionally or knowingly making or causing to be made false material statements or representations in this certification is a CRIMINAL OFFENSE subject to criminal penalties.

DATE:_____ SIGNATURE:_____

Note: Original Signature in Ink is Required.

Form BART EA-1 (Page 2)
(Table 1 - Summary of Proposed BART)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

Emission Unit Name	Proposed BART	Pollutants Controlled	Visibility Improvement 98th %-ile Day (delta deciview)	Affected Class I Areas

Form BART EA-1 (Page 3)
(Table 2 - MACT as BART for Eligible Units)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

Emission Unit ID No.	Emission Unit Description	MACT Std. Regulated Pollutant	MACT Limit	MACT limit, (lb./day)

Form BART EA-1 (Page 4)
(Table 3 - Input Data: Baseline Modeling Conditions)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

EU ID/Stack No.	SO2 max. 24 hr. actuals lb./day	NOx max. 24 hr. actuals lb./day	PM10 max. 24 hr. actuals lb./day	Northing Location (utm)	Easting Location (utm)	Vent Height (ft.)	Baseline Elevation (ft.)	Stack Dimensions (ft.)	Exit Flow (acfm)	Exit Temp. (deg. F)

Form BART EA-1 (Page 5)
(Table 4 - Basis for 24 hr. Emissions Data)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

EU ID/Stack No.	Basis: SO2 max. 24 hr. actuals – lb./day	Basis: NOx max. 24 hr. actuals – lb./day	Basis: PM 2.5 max. 24 hr. actuals – lb./day	Basis: PM 10 max. 24 hr. actuals – lb./day

Form BART EA-1 (Page 6)
(Table 5 - Modeling Results, Baseline Visibility)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

EU ID No.	Class I Area	2001		2002		2003		2001-2003 Combined	
		98th %-ile Value (deciview)	0.5 Deciview Exceedances (no. of days)	98th %-ile Value (deciview)	0.5 Deciview Exceedances (no. of days)	98th %-ile value (deciview)	0.5 Deciview Exceedances (no. of days)	98th %-ile Value (deciview)	0.5 Deciview Exceedances (no. of days)

Form BART EA-1 (Page 7)
(Table 6: Post-Control Emission Rates - SO_2)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

Emission Unit ID; Name/No.:_____ *(submit a completed Table 6 for each emission unit evaluated for SO_2)*

Control Scenario No.	SO2 Control Technology	SO2 max. 24 hr. actuals-lb./day	%-Reduction	NOx max. 24 hr. actuals-lb./day	%-Reduction	PM2.5 max. 24 hr. actuals-lb./day	%-Reduction	PM2.5 max. 24 hr. actuals-lb./day	%-Reduction

Form BART EA-1 (Page 8)
(Table 6: Post-Control Emission Rates - NO_x)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

Emission Unit ID; Name/No.:_____ *(submit a completed Table 6 for each emission unit evaluated for NO_x)*

Control Scenario No.	NOx Control Technology	NOx max. 24 hr. actuals- lb./day	%- Reduction	SO2x max. 24 hr. actuals- lb./day	%- Reduction	PM2.5 max. 24 hr. actuals- lb./day	%-Reduction	PM2.5 max. 24 hr. actuals- lb./day	%- Reduction

Form BART EA-1 (Page 9)
(Table 6: Post-Control Emission Rates - PM)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

Emission Unit ID; Name/No.:_____ *(submit a completed Table 6 for each emission unit evaluated for PM)*

Control Scenario No.	PM Control Technology	PM2.5 max. 24 hr. actuals-lb./day	%-Reduction	PM10 max. 24 hr. actuals-lb./day	%-Reduction	NOx max. 24 hr. actuals-lb./day	%-Reduction	SO2 max. 24 hr. actuals-lb./day	%-Reduction

Form BART EA-1 (Page 10)
(Table 7: Post-Control Stack Parameters - SO_2)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1510-1540)

Emission Unit ID; Name/No.:_____ *(submit a completed Table 7 for each emission unit evaluated for SO_2)*

Control Scenario No.	SO_2 Control Technology	Stack No.	Northing Location (utm)	Easting Location (utm)	Vent Height (ft.)	Baseline Elevation (ft.)	Stack Dimensions (ft.)	Exit Flow (acfm)	Exit Temp. (deg. F)

Form BART EA-1 (Page 11)
(Table 7: Post-Control Stack Parameters - NO_x)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

Emission Unit ID; Name/No.:_____(*submit a Table 7 for each emission unit evaluated for NO_x)*

Control Scenario No.	NO_x Control Technology	Stack No.	Northing Location (utm)	Easting Location (utm)	Vent Height (ft.)	Baseline Elevation (ft.)	Stack Dimensions (ft.)	Exit Flow (acfm)	Exit Temp. (deg. F)

Form BART EA-1 (Page 12)
(Table 7: Post-Control Stack Parameters - PM)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

Emission Unit ID; Name/No.:_____*(submit a Table 7 for each emission unit evaluated for PM)*

Control Scenario No.	PM Control Technology	Stack No.	Northing Location (utm)	Easting Location (utm)	Vent Height (ft.)	Baseline Elevation (ft.)	Stack Dimensions (ft.)	Exit Flow (acfm)	Exit Temp. (deg. F)

Form BART EA-1 (Page 13)
(Table 8: Post-Control Visibility Results - SO_2)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

Emission Unit ID; Name/No.:_____ *(submit a Table 8 for each emission unit evaluated for SO_2)*

Control Scenario No.	SO_2 Control Strategy	Class I Area	2001		2002		2003		2001-2003 Combined	
			98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)	98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)	98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)	98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)

Form BART EA-1 (Page 14)
(Table 8: Post-Control Visibility Results - NO_x)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

Emission Unit ID; Name/No.: _____ *(submit a Table 8 for each emission unit evaluated for NO_x)*

Control Scenario No.	NOx Control Strategy	Class I Area	2001		2002		2003		2001-2003 Combined	
			98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)	98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)	98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)	98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)

Form BART EA-1 (Page 15)
(Table 8: Post-Control Visibility Results - PM)
Engineering Analysis
Best Available Retrofit Technology
(Title 30 Texas Administrative Code §§ 116.1500-1540)

Emission Unit ID; Name/No:_____ *(submit a Table 8 for each emission unit evaluated for PM)*

Control Scenario No.	PM Control Strategy	Class I Area	2001		2002		2003		2001-2003 Combined	
			98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)	98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)	98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)	98th %-ile Value (deciview)	0.5 Deciview Exceedances (No. of days)