

**RESPONSE TO COMMENTS FOR
PROPOSED AMENDMENTS OF THE BACT GUIDELINES**

A public meeting was held on October 26, 2017 with the BACT Scientific Review Committee to present and discuss the proposed amendments to the BACT Guidelines. The following are staff responses to comments and questions from letters and e-mails received from the 30-day comment period:

Comment Letter AA – Alison Torres, Eastern Municipal Water District (e-mail)

Comment Letter BB – Terry Ahn, Orange County Sanitation District (e-mail)

Comment Letter CC – Bridget McCann, Western States Petroleum Association (e-mail)

Comment Letter DD – Rita Loof, RadTech (e-mail)

COMMENT LETTER AA

Al Baez

From: Torres, Alison [REDACTED]
Sent: Tuesday, November 7, 2017 9:46 AM
To: Al Baez
Cc: Tom Lee
Subject: BACT Comments

Good Morning Al,

Thank you for the opportunity to provide comments on the BACT determinations presented at the BACT SRC Meeting on Thursday October 26, 2017.

We appreciate your consideration of the comment letter we submitted in May 2017 and the changes you made based on those comments. We have some additional comments on the package provided at the October 26 SRC meeting.

Our comments are detailed below.

- Part B, Section I, SCAQMD LAER-Flare Biogas listing (A/N 513835):
 - AA1** ○ Section 1.L.- change "achieve reliable operation" to "improve reliable operation"
 - AA2** ○ Section 6.E.- add "@3% O2" to source test performance data for VOC
 - AA3** ○ Add "Wastewater" to Equipment Subcategory
- Part B, Section I, SCAQMD BACT-Updated listing, IC Engine DG fired (A/N 546360):
 - AA4** ○ We suggest adding discussion related to the need for fuel pretreatment to Section 1.L.
 - AA5** ○ We suggest adding some information related to the max inlet siloxane requirements based on control system specs to the listing.
- Part B, Section III, Other Technologies- IC Stationary Emergency Generator (A/N 567735)
 - AA6** ○ Listing should indicate that the engine is a Tier 2 certified engine.

Please let me know if you have questions or need additional information.

Thank you!

Alison Torres

Sr. Air Quality Compliance Analyst
Environmental & Regulatory Compliance Dept
Eastern Municipal Water District

[REDACTED]
[REDACTED]

Serving our community today and tomorrow

COMMENT LETTER BB

Al Baez

From: Ahn, Terry [REDACTED]
Sent: Monday, November 13, 2017 1:02 PM
To: Al Baez
Cc: Tom Lee
Subject: RE: EXTERNAL: proposed BACT/LAER listing of OCSB biogas engine A/N: 546360
Attachments: Lab Siloxane Data Nov 2016-Nov 2017.xlsx



Hi Al,

Please find attached Siloxane analysis results for OCSD's digester gas for the past 12 months. The sampling/analysis is done in-house usually twice a month. Based on these results, the suggested inlet Siloxanes loading would be less than 1 ppmv for D4 and less than 5 ppmv for D5. [REDACTED] BB1

[REDACTED]

If you have any questions please let me know.

Thanks,

Terry Ahn
Orange County Sanitation District
Regulatory Specialist

www.ocsewers.com

COMMENT LETTER CC

Al Baez

From: Bridget McCann [REDACTED]
Sent: Monday, November 27, 2017 2:24 PM
To: Al Baez
Subject: Comments on Section 1, SCAQMD BACT Determination (Major/LAER)
Attachments: LAER_Section1_all_WSPA Comments 112717.pdf

Hi Al—

Attached are my comments regarding Section 1, SCAQMD BACT Determination (Major/LAER). I have made my comments directly onto the draft document.

Let me know if you have any questions.

Thank you,
Bridget

Bridget McCann
Manager, Southern California Region
Western States Petroleum Association

[REDACTED]

WSPA comments are listed in the comment bubbles in the margin. All other edits are made by SCAQMD staff.



Section 1, SCAQMD BACT Determination

Source Type: **Major/LAER**
 Application No.: **562449**
 Equipment Category: **Boiler**
 Equipment Subcategory: **39.9 MMBtu/hr with SCR**
 Date: **March 22, 2016**

1. EQUIPMENT INFORMATION		
A. MANUFACTURER: Simoneau	B. MODEL: FX2-35	
C. DESCRIPTION: 39.9 MMBtu watertube boiler with low NOx burner and SCR unit with ammonia injection		
D. FUNCTION: Boilers provides steam for laundry facilities, hospital heating and sterilization procedures.		
E. SIZE/DIMENSIONS/CAPACITY: Boiler No. 2		
COMBUSTION SOURCES		
F. MAXIMUM HEAT INPUT: 39.9 MMBtu/hr		
G. BURNER INFORMATION		
TYPE	INDIVIDUAL HEAT INPUT	NUMBER
WEBSTER	39.9 MMBtu/hr	1
H. PRIMARY FUEL: NATURAL GAS	FUEL OIL	
J. OPERATING SCHEDULE:	24 7 52	
K. EQUIPMENT COST:		
L. EQUIPMENT INFORMATION COMMENTS: EQUIPMENT IS NEW CONSTRUCTION. THREE IDENTICAL BOILERS AND SCR WITH IDENTICAL LIMITS. ADD'L PERMIT NO. BOILER 1 G36227, BOILER 3 G36229, SCR 1 G36231, SCR 3 G36234		

2. COMPANY INFORMATION	
A. COMPANY: US GOVT, VET. AFFAIRS MED CTR (LONG BEACH)	B. FAC ID: 13990
C. ADDRESS: 5901 E. 7 th ST. CITY: Long Beach STATE: CA ZIP: 90822	D. NAICS CODE: 622110
E. CONTACT PERSON: Jason Thompson	F. TITLE: Env Protection Spec.
G. PHONE NO.: 562-826-8000 x3083	H. EMAIL:

3. PERMIT INFORMATION

A. AGENCY: SCAQMD	B. APPLICATION TYPE: NEW CONSTRUCTION
C. SCAQMD ENGINEER: Roy Olivares	
D. PERMIT INFORMATION: PC ISSUANCE DATE: P/O NO.: G36227 PO ISSUANCE DATE: 6/18/2015	
E. START-UP DATE: 8/7/2015	
F. OPERATIONAL TIME: > 1 year	

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES:						
	VOC	NOx	SOx	CO	PM OR PM ₁₀	INORGANIC
BACT Limit		5 ppmvd		100 ppmvd		5 ppmvd NH3 slip
Averaging Time		15 min		15 MIN		60 MIN
Correction		@ 3% O2		@ 3% O2		@ 3% O2
B. OTHER BACT REQUIREMENTS: When firing on Standby fuel: 40 ppmvd NOx @3%O2, 15 min avg; 400 ppmvd CO @3%O2.						
C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology						
D. EMISSION INFORMATION COMMENTS: Enter any additional comments regarding Emissions Information.						

CC1

Comment [BM1]: The averaging time for NOx emissions should be 1 hour or multi-hour (as applicable), as specified in EPA NSPS 40 CFR Part 60 Subpart D. BACT determinations are case-by-case and similarly the applicable averaging periods are case-by-case determinations. In many cases 1-hr averages or longer are appropriate for BACT and consistent with applicable NSPS and/or NESHAPS standards.

Comment [BM2]: Same comment applies here. The averaging time for NOx emissions should be 1 hour or multi-hour (as applicable), as specified in EPA NSPS 40 CFR Part 60 Subpart D. BACT determinations are case-by-case and similarly the applicable averaging periods are case-by-case determinations. In many cases 1-hr averages or longer are appropriate for BACT and consistent with applicable NSPS and/or NESHAPS standards.

CC2

5. CONTROL TECHNOLOGY

A. MANUFACTURER: Pasasia		B. MODEL: Custom	
C. DESCRIPTION: Selective Catalytic Reduction, low temp de-NOx, haldor topsoe, model dnx-1029. Ammonia injection, three 150 lb cylinders, feed forward			
D. SIZE/DIMENSIONS/CAPACITY: 4'-9" W x 4'-9" L x 9'-0" H			
E. CONTROL EQUIPMENT PERMIT INFORMATION: APPLICATION NO. 562452 PC ISSUANCE DATE: PO NO.: G36233 PO ISSUANCE DATE: 6/18/2015			
F. REQUIRED CONTROL EFFICIENCIES: Emission requirements are mass based and listed in Section 4 emission Information			
CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	%	%	%
NOx	%	%	%
SOx	%	%	%
CO	%	%	%
PM	%	%	%
PM ₁₀	%	%	%
INORGANIC	%	%	%
G. CONTROL TECHNOLOGY COMMENTS Pressure drop not to exceed 2.5" H2O. SCR be temperature 400-650oF. Ammonia injection shall not exceed 0.55 lb/hr. Ammonia injection to start when cat bed outlet temp reaches 400oF. Start-ups not to exceed 120 min for cold start and 30 min for warm start.			

6. DEMONSTRATION OF COMPLIANCE

A. COMPLIANCE DEMONSTRATED BY: Source Test PR16435
B. DATE(S) OF SOURCE TEST: October 12, 2016
C. COLLECTION EFFICIENCY METHOD:
D. COLLECTION EFFICIENCY PARAMETERS:
E. SOURCE TEST/PERFORMANCE DATA: low mid and high fire each tested for NOx, CO and NH3. Reference source test report for details of each load tested. All loads met emission limits for each contaminant,
F. TEST OPERATING PARAMETERS AND CONDITIONS: Low fire 322 Mcfd, mid fire 437 Mcfd, 814 Mcfd
G. TEST METHODS (SPECIFY AGENCY): SCAQMD Method 207.1, SCAQMD 100.1

H. MONITORING AND TESTING REQUIREMENTS: NH3 slip test every 3 months for first year.
I. DEMONSTRATION OF COMPLIANCE COMMENTS:

7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: 011204	B. CCAT: 81	C. APPLICATION TYPE CODE: 10	
D. RECLAIM FAC? YES <input type="checkbox"/> NO <input type="checkbox"/>	E. TITLE V FAC: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	F. SOURCE TEST ID(S): PR16435	
G. SCAQMD SOURCE SPECIFIC RULES: 1146			
H. HEALTH RISK FOR PERMIT UNIT			
H1. MICR:	H2. MICR DATE:	H3. CANCER BURDEN:	H4. CB DATE:
H5. HIA:	H6. HIA DATE:	H7. HIC:	H8. HIC DATE:

DRAFT

COMMENT LETTER DD

Al Baez

From: Rita Loof [REDACTED]
Sent: Monday, November 27, 2017 11:18 PM
To: Al Baez
Subject: BACT Comments
Attachments: Commnets BACT 1117.doc

Dear Al,

DD1 Please refer to our previous comments on the BACT guidelines proposal. We appreciate your consideration of UV/EB/LED technology as a compliance option.

DD2 As per your request, attached please find a listing of permitted UV equipment. We can provide additional information if needed. Thank you so much,
Rita

Rita M. Loof
Director, Environmental Affairs
RadTech International

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

www.radtech.org



Flexographic Printing, UV

Facility Name	Permit #	Date Issued
Accurate Label	F31154	04/06/00
Accurate Label	F31155	04/06/00
Accurate Label	F31156	04/06/00
Accurate Label	F31157	04/06/00
Accurate Label	F31158	04/06/00
Accurate Label	F31160	04/06/00
Accurate Label	F31161	04/06/00
Accurate Label	F31162	04/06/00
CCL Label	F16171	09/24/98
CCL Label	F16172	09/25/98
CCL Label	F21107	06/30/99
CCL Label	F16175	09/24/98
CCL Label	F5347	02/12/97
CCL Label	F5349	02/12/97
Pac West Label & Graphics	F18786	01/14/99
Pac West Label & Graphics	F18787	01/14/99
Pac West Label & Graphics	F18789	01/14/99
Pac West Label & Graphics	F18790	01/14/99
Pac West Label & Graphics	F18791	01/14/99
California Litho CO. Inc.	F33208	08/16/00
The Label Co,	F10135	10/29/97
The Label Co,	F10136	10/29/97
National Card, Label & Affixing Inc.	F25239	03/10/00
KenPak Inc	F22938	12/03/99
Western Shield Label Co. Inc.	F20459	05/05/99
Western Shield Label Co. Inc.	F20460	05/05/99
Genforms Corp.	F30121	05/16/00

Lithographic Printing, UV

Holiday Printing & Lithograph Inc.	F32751	07/25/00
Westminster Press	F15320	08/11/98
K & D Graphics, A California Corp.	F24307	02/09/00
Jaco Printing Corp, Business Forms Press	D53533	05/21/92
Jaco Printing Corp, Business Forms Press	F15651	11/24/98
Jaco Printing Corp, Business Forms Press	F15651	11/24/98
Royal Paper Box Co.	D92649	08/10/95
Creative Mailings Inc.	F31957	06/21/00

Screen Printing, UV

Screen Label Corp.	D90436	05/03/95
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Spray Booth, UV

Excel Cabinets, Inc.	Application # 450588	11/26/05
Head West Inc.	F80114	01/12/06

Response to Comment Letter AA (Alison Torres, EMWD)

Comment AA1:

Part B, Section I, SCAQMD LAER-Flare Biogas listing (A/N 513835): Section 1.L.- change “achieve reliable operation” to “improve reliable operation”

Response AA1:

Staff agrees and has revised language in Section 1.L to “improve reliable operation”.

Comment AA2:

Part B, Section I, SCAQMD LAER-Flare Biogas listing (A/N 513835): Section 6.E.- add “@3% O₂” to source test performance data for VOC.

Response AA2:

Staff agrees and has included language in Section 6.E to read “@ 3% O₂”.

Comment AA3:

Part B, Section I, SCAQMD LAER-Flare Biogas listing (A/N 513835): Add “Wastewater” to Equipment Subcategory

Response AA3:

Staff agrees and has included clarification language to Equipment Subcategory of “Wastewater”.

Comment AA4:

Part B, Section I, SCAQMD BACT-Updated listing, IC Engine DG fired (A/N 546360): We suggest adding discussion related to the need for fuel pretreatment to Section 1.L..

Response AA4:

Staff agrees and has included language in Section 1.L regarding usage of fuel pretreatment.

Comment AA5:

Part B, Section I, SCAQMD BACT-Updated listing, IC Engine DG fired (A/N 546360): We suggest adding some information related to the max inlet siloxane requirements based on control system specs to the listing.

Response AA5:

Staff agrees and has included language regarding inlet siloxane levels.

Comment AA6:

Part B, Section III, Other Technologies- IC Stationary Emergency Generator (A/N 567735): Listing should indicate that the engine is a Tier 2 certified engine.

Response AA6:

Staff agrees and has included clarification language regarding certified Tier 2 engine equipped with Tier 4 Aftertreatment to comply with EPA Tier 4 Requirements.

Response to Comment Letter BB (Terry Ahn, OCSD)

Comment BB1:

The sampling/analysis is done in-house usually twice a month. Based on these results, the suggested inlet Siloxanes loading would be less than 1 ppmv for D4 and less than 5 ppmv for D5.

Response BB1:

Staff agrees and has included language regarding inlet siloxane loading levels of less than 1 ppmv for D4 and less than 5 ppmv for D5.

Response to Comment Letter CC (Bridget McCann, WSPA)

Comment CC1:

Part B, Section I, SCAQMD BACT-Updated listing, Boiler (A/N 562449) Section 4.A: The averaging time for NOx emissions should be 1 hour or multi-hour (as applicable), as specified in EPA NSPS 40 CFR Part 60 Subpart D. BACT determinations are case-by-case and similarly the applicable averaging periods are case-by-case determinations. In many cases 1-hr averages or longer are appropriate for BACT and consistent with applicable NSPS and/or NESHAPS standards.

Comment CC2:

Part B, Section I, SCAQMD BACT-Updated listing, Boiler (A/N 562449) Section 4.B: Same comment applies here. The averaging time for NOx emissions should be 1 hour or multi-hour (as applicable), as specified in EPA NSPS 40 CFR Part 60 Subpart D. BACT determinations are case-by-case and similarly the applicable averaging periods are case-by-case determinations. In many cases 1-hr averages or longer are appropriate for BACT and consistent with applicable NSPS and/or NESHAPS standards.

Response CC1 and CC2:

Staff agrees that BACT determinations are case-specific as is the case with the proposed LAER BACT determination for the 39.9 MMBtu/hr Boiler in Part B, Section I of the BACT Guidelines. The 5 ppmvd, 15 minute average NOx emission limit listed on section 4A of the BACT determination form is consistent with the applicable Rule 1146 requirement which is also listed on the permit conditions. In addition, EPA has reviewed and made a determination that these type of boilers are subject to 40 CFR Part 60 Subpart Dc, even though they do not have emission limits under Subpart Dc. Specifically, natural gas units are subject to the fuel recordkeeping requirement in 40 CFR 60.48c(g)(2). Furthermore, pursuant to 40 CFR 63.11195(e) these type of boilers are not subject to NESHAP 40 CFR 63 Subpart JJJJJ because they meet the definition of “gas-fired boiler” in 40 CFR 63.11236.

Response to Comment Letter DD (Rita Loof, RadTech)

Comment DD1:

Please refer to our previous comments on the BACT guidelines proposal. We appreciate your consideration of UV/EB/LED technology as a compliance option.

Response DD1:

Staff agrees and has recognized UV/EB ink and coating technology in past BACT determinations both in Part B and D (major and non-major sources) of the BACT Guidelines. Staff is also proposing the inclusion of compliant UV/EB and water-based inks/coatings as an alternative method of BACT compliance for Printing (Graphic Arts)-Flexographic and Screen Printing and Drying operations.

Comment DD2:

As per your request, attached please find a listing of permitted UV equipment.

Response DD2:

Staff will be reviewing the provided list of permitted UV equipment for potential future inclusion into Part B, Section I LAER/BACT determinations.