

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control



December 3, 1982

Mr. Bruce Mitchell  
Central Air Permitting Section  
Dept. of Environmental Regulation  
Twin Towers Office Building  
2600 Blainstone Road  
Tallahassee, Florida 32301

Re: Anheuser-Busch - Jacksonville  
Boilers #1 - #4

DER  
DEC 06 1982  
BAQM

Dear Mr. Mitchell:

Enclosed is the particulate and visible emissions test information on the subject sources as you requested.

If I may be of further assistance, please advise.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Jerry E. Woosley".

Jerry E. Woosley  
Assistant Engineer

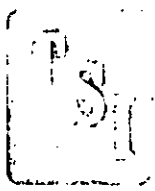
JEW/vj  
Enclosure



TABLE I  
EMISSION SUMMARY  
ANHEUSER BUSCH, INC.-JACKSONVILLE, FLA.

DATE	SOURCE	RUN NO.	PARTICULATE EMISSIONS			VOLUMETRIC AIR FLOW	
			LBS./HR.	MILLION BTU/HR.	LBS./MM BTU	ACFM	SCFMD
4/21/81	NO.1						
	BOILER	1	13.36	85.3	0.157	41460	21205
4/21/81		2	7.66	85.3	0.090	36685	19607
4/21/81		3	8.46	86.4	0.098	37337	19692
		MEAN	9.83	85.7	0.115	38494	20168
4/23/81	No. 2	1	8.49	78.7	0.108	41027	21174
4/23/81	Boiler	2	5.27	78.1	0.068	37733	19383
4/23/81		3	5.96	74.8	0.079	37589	19372
		MEAN	6.57	77.2	0.085	38783	19976
4/23/81	NO. 3	1	4.18	82.6	0.051	34463	18849
4/23/81	BOILER	2	5.47	82.8	0.066	33853	18391
4/23/81		3	6.81	79.6	0.086	34565	18906
		MEAN	5.49	81.7	0.068	34294	18715
4/22/81	NO. 4	1	9.86	89.3	0.110	31733	16217
4/22/81	BOILER	2	5.45	79.8	0.068	30689	15987
4/22/81		3	5.17	75.0	0.069	29908	15686
		MEAN	6.83	81.4	0.082	30777	15963

ALLOWABLE EMISSION = 0.10 LBS./MM BTU



TECHNICAL SERVICES, INC.  
ENVIRONMENTAL CONSULTANTS

Air and Water Pollution Sampling,  
Surveys, Testing and  
Analytical Services

March 22, 1982

1037 STOKRICH BLVD.  
P. O. BOX 52029  
JACKSONVILLE, FLORIDA 32201

VISIBLE EMISSIONS TEST DATA

FOR: ANHEUSER BUSCH, INC.

PLANT ADDRESS: P.O. Box 18017 AMF, Jacksonville, Fl 32218

SOURCE IDENTIFICATION: Boilers No. 1, 2, 3, and 4

COMPANY OFFICIAL CONTACT: Mr. Tom Martin

TEST CONDUCTED BY: William H. Hoffmann

OBSERVATION MADE FROM: See field data sheets

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

A copy of William H. Hoffmann's State of Florida  
Certification is attached to this report.

William H. Hoffmann  
OBSERVER'S SIGNATURE

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

THIS IS TO CERTIFY THAT

William H. Hoffmann completed  
the STATE OF FLORIDA visible emissions evaluation training  
and is a qualified observer of visible emissions as specified by  
EPA reference method 9.  
This certificate expires on March 31, 1982

Judi Sears William H. Hoffmann  
Certification Officer                      Bearer's Signature

DER Form PERM 5-9 (Jun 79)



# TECHNICAL SERVICES, INC.

## VISIBLE EMISSIONS FIELD DATA SHEET

Tel. (904) 353-5761  
 103-7 STOCKTON STREET  
 P. O. BOX 52329  
 JACKSONVILLE, FLORIDA 32201

Company Name A. BUSH  
 Source # 1 Boiler

Date 3/19/82  
 Time 1010-1110

Wind Direction and Speed SE 0-5  
 Observer's Signature William J. Hoffman

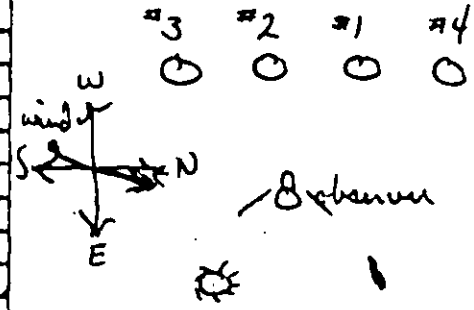
min.	Sec.			
	0	15	30	45
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
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18	0	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
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23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0
27	0	0	0	0
28	0	0	0	0
29	0	0	0	0

min.	Sec.			
	0	15	30	45
30	0	0	0	0
31	0	0	0	0
32	0	0	0	0
33	0	0	0	0
34	0	0	0	0
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42	0	0	0	0
43	0	0	0	0
44	0	0	0	0
45	0	0	0	0
46	0	0	0	0
47	0	0	0	0
48	0	0	0	0
49	0	0	0	0
50	0	0	0	0
51	0	0	0	0
52	0	0	0	0
53	0	0	0	0
54	0	0	0	0
55	0	0	0	0
56	0	0	0	0
57	0	0	0	0
58	0	0	0	0
59	0	0	0	0

Height of Stack: 75'  
 Distance to Stack: 200'  
 Color of Plume: White/Gray  
 Condensed water: Yes  No   
 Point of Opacity Reading: outlet of stack

Background Description: Blue Sky

Opacity =  $\frac{\text{Sum of nos. recorded}}{\text{Total nos. readings}}$   
 $= \frac{605}{240} = 2.5\%$





TECHNICAL SERVICES, INC.  
VISIBLE EMISSIONS FIELD DATA SHEET

Tel. (904) 353-5761  
103-7 STOCKTON STREET  
P. O. BOX 52329  
JACKSONVILLE, FLORIDA 32201

Company Name A. Busch  
Source #2 Boiler

Date 3/19/82  
Time 1010 - 1110

Wind Direction and Speed SSE 0-5

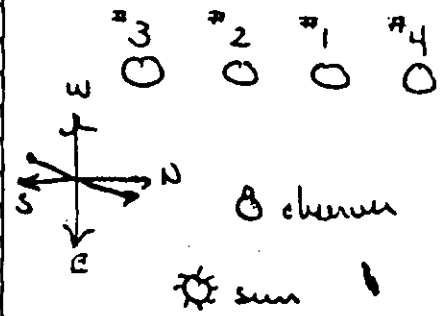
Observer's Signature William D. Hoffman

min.	sec.			
	0	15	30	45
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
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25	0	0	0	0
26	0	0	0	0
27	0	0	0	0
28	0	0	0	0
29	0	0	0	0

min.	sec.			
	0	15	30	45
30	0	0	0	0
31	0	0	0	0
32	0	0	0	0
33	0	0	0	0
34	0	0	0	0
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38	0	0	0	0
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40	0	0	0	0
41	0	0	0	0
42	0	0	0	0
43	0	0	0	0
44	0	0	0	0
45	0	0	0	0
46	0	0	0	0
47	0	0	0	0
48	0	0	0	0
49	0	0	0	0
50	0	0	0	0
51	0	0	0	0
52	0	0	0	0
53	0	0	0	0
54	0	0	0	0
55	0	0	0	0
56	0	0	0	0
57	0	0	0	0
58	0	0	0	0
59	0	0	0	0

Height of Stack: 75'  
Distance to Stack: 200'  
Color of Plume: clear-white  
Condensed water: Yes  No   
Point of Opacity Reading: outlet of stack

Background Description: Blue Sky  
Opacity =  $\frac{\text{Sum of nos. recorded}}{\text{Total nos. readings}}$   
=  $\frac{360}{240} = 1.5\%$





**TECHNICAL SERVICES, INC.**  
VISIBLE EMISSIONS FIELD DATA SHEET

Tel. (904) 353-5761  
103-7 STOCKTON STREET  
P. O. BOX 57329  
JACKSONVILLE, FLORIDA 32201

Company Name A. Busch  
Source #3 Boilers

Date 3/19/82  
Time 1010 - 1110

Wind Direction and Speed SSE-0-5

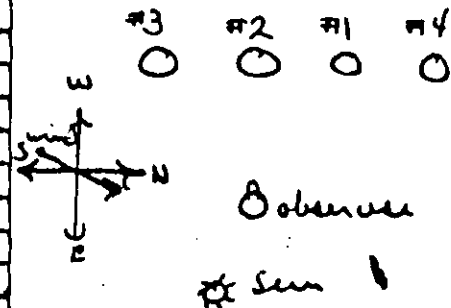
Observer's Signature William H. Hoffmann

min. \ sec.	sec.			
	0	15	30	45
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
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11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0	0	0	0
19	0	0	0	0
20	W	W	W	W
21	W	W	W	W
22	W	W	W	W
23	W	W	W	W
24	W	W	W	W
25	W	W	W	W
26	25	20	15	10
27	0	0	0	0
28	0	0	0	0
29	0	0	0	0

min. \ sec.	sec.			
	0	15	30	45
30	0	0	0	0
31	0	0	0	0
32	0	0	0	0
33	5	5	5	5
34	0	0	0	0
35	0	0	0	0
36	0	0	0	0
37	0	0	0	0
38	0	0	0	0
39	0	0	0	0
40	0	0	0	0
41	0	0	0	0
42	0	0	0	0
43	0	0	0	0
44	0	5	5	0
45	5	5	5	0
46	5	5	5	0
47	5	5	5	0
48	W	W	W	W
49	W	W	W	W
50	W	W	W	W
51	W	W	W	W
52	15	10	10	10
53	10	10	15	15
54	5	5	5	0
55	0	0	0	0
56	0	0	0	0
57	5	15	5	W
58	5	5	5	W
59	0	0	5	W

Height of Stack: 75'  
Distance to Stack: 200'  
Color of Plume: Clear-White  
Condensed water: Yes  No   
Point of Opacity Reading: Outlet of stack

Background Description: Blue Sky  
Opacity =  $\frac{\text{Sum of nos. recorded}}{\text{Total nos. readings}}$   
 $= \frac{535}{240} = 2.2\%$





**TECHNICAL SERVICES, INC.**  
**VISIBLE EMISSIONS FIELD DATA SHEET**

Tel. (904) 353-5761  
 103-7 STOCKTON STREET  
 P. O. BOX 57329  
 JACKSONVILLE, FLORIDA 32201

Company Name A. Busch  
 Source #4 Boiler

Date 5/19/82  
 Time 1010-1110

Wind Direction and Speed SE 0-5 mph  
 Observer's Signature William V. Johnson

min. \ sec.	sec.			
	0	15	30	45
0	5	5	10	10
1	5	5	5	5
2	5	5	5	5
3	5	0	0	5
4	5	0	0	0
5	10	0	0	5
6	10	0	5	5
7	0	5	5	5
8	5	5	5	5
9	5	5	5	5
10	5	5	5	5
11	0	0	5	5
12	10	10	10	10
13	5	10	5	5
14	0	0	0	0
15	0	0	0	0
16	0	0	5	5
17	5	5	5	5
18	5	5	5	5
19	5	5	5	5
20	10	10	10	5
21	10	10	10	10
22	10	10	10	10
23	10	10	10	10
24	10	10	5	5
25	5	5	0	5
26	10	10	5	5
27	5	5	5	10
28	5	5	5	10
29	10	10	10	10

min. \ sec.	sec.			
	0	15	30	45
30	10	10	10	10
31	10	10	10	10
32	10	10	10	10
33	10	10	5	10
34	5	5	0	0
35	0	0	0	0
36	0	0	0	0
37	0	5	0	0
38	0	0	0	0
39	0	0	0	0
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44	0	5	0	0
45	0	0	0	0
46	0	0	0	0
47	0	0	0	0
48	0	5	0	0
49	5	5	5	5
50	5	5	5	5
51	5	5	5	5
52	10	10	5	5
53	5	5	5	0
54	0	0	0	0
55	0	5	5	5
56	10	10	10	5
57	5	5	5	5
58	5	5	5	5
59	5	5	0	0

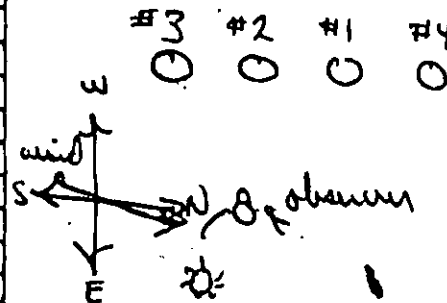
Height of Stack: 75'  
 Distance to Stack: 200'  
 Color of Plume: Clear-White  
 Condensed water: Yes (NO)  
 Point of Opacity Reading: outlet of Stack

Background Description:

Blue Sky

Opacity =  $\frac{\text{Sum of nos. recorded}}{\text{Total nos. readings}}$

$\frac{1085}{240} = 4.5\%$





STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

December 7, 1982

Mr. Donald M. DeHart  
Senior Environmental Engineer  
Anheuser-Busch Companies, Inc.  
One Busch Place  
St. Louis, Missouri 63118

Re: Requests for Surrogate Test Methods - ASP-J01-82

Dear Mr. DeHart:

The Bureau has received your request for approval of two (2) surrogate test methods. In order to complete the reviews, submit the complete package of data of the last two (2) mass emission stack tests for each of the boilers, Nos. 1, 2, 3 and 4. Also, submit the last two (2) visible emission tests performed on the same boilers.

Processing of your requests will resume upon receipt of the requested data. If you have any questions, call Bruce Mitchell at (904) 488-1344 or write to me at the above address.

Sincerely,

*John P. Svec, P.E.*

C. H. Fancy, P.E.  
Deputy Bureau Chief  
Bureau of Air Quality  
Management

CHF/BM/bjm

cc: Bill Blommel  
Jerry Woosley  
Johnny Cole  
Martha Harrell Hall

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee		
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
From: _____	Date: _____	
Reply Optional [ ]	Reply Required [ ]	Info. Only [ ]
Date Due: _____	Date Due: _____	

TO: Bruce Mitchell  
THRU: Bill Blommel *WB*  
FROM: Jim Manning *JM*  
SUBJECT: Alternate Standards and Procedures Requested  
by Anheuser-Busch Company. File Number ASP-J01-82  
DATE: October 15, 1982

In response to Mr. Blommel's memo dated 9/22/82, I am submitting the following comments on the subject request:

1. A visible emissions test should be substituted for a particulate emissions test for compliance verification purposes only after a maximum opacity level has been determined that corresponds to the maximum particulate emission rate from a particular unit. This correlated opacity limit should be determined (not assumed) by a series of stack tests at several (minimum 4) boiler loads, including one at maximum capacity. The correlated opacity limit should be accompanied by certain operating parameters recorded during the stack tests (i.e., excess air range, fuel analysis) and if any of those parameters change substantially, a new series of correlating tests should be conducted to establish a new correlated opacity limit. If a CEM is in operation, the data correlating with the stack tests should also be submitted. It should also be established in the Order that a violation of the correlated VE limit will be considered a violation of the mass emission limit and will result in appropriate enforcement action. A correlated opacity limit should only be allowed on a unit that exhausts through its own distinct stack, or, if not possible, a system devised so that each unit can be evaluated individually, i.e. opacity monitors. For compliance verification, the company should be required to conduct a VE test quarterly and it should consist of three 1-hour observations by a qualified observer. The regulatory agency responsible for that source must have the right to make observations at any time and also require a stack test at any time if there is reason to believe all requirements of the Order are not being met.

To: Bruce Mitchell

October 15, 1982

Page two

2. If fuel oil analysis is substituted for SO<sub>2</sub> stack tests, then the analysis should be the basis for the finding of violation of the SO<sub>2</sub> mass limit and should be used for enforcement action. The company should be required to submit a proposed fuel oil sampling scheme, including method of extraction, location of sampling point and sampling intervals, for agency evaluation prior to approval of this request.

These items should be addressed by the company prior to the decision to approve or deny the request.

JM/dt

TO

BILL BLOMMELL BAGM  
BRUCE MITCHELL BAGM

FROM JOHN KETTERINGHAM  
N.E. DISTRICT

SUBJECT SURROGATE TEST FOR AMES 302

DATE

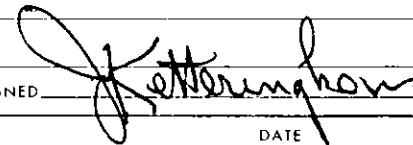
10-8-82

MESSAGE<sup>Ref</sup> your memo 9-16-82  
LET DISTRICT / LOCAL PROGRAM DECIDE.  
OUR RULE IS BECOMING CLUTTERED WITH SPECIFICS.  
IT CANNOT ADDRESS ALL CASES.  
DUAL BES HAS AN EXCELLENT TRAINED STAFF  
AND THEIR RECOMMENDATION IS IN FAVOR OF THE  
APPLICANTS REQUEST.

CONCUR

ATTACHED IS STAN MAZUR'S COMMENT. HE DOES  
NOT CONCUR.

SIGNED



DATE

REPLY

SIGNED

To: Bill Blommel  
Theri J. Ketteringham

My response to you your letter of 22 Sept 1982 concerning alternate procedures and standards requested by Amherster-Busch Co. [file number ASP-SC1-82] is:

1. I approve of using As-Fired Fuel Analysis in lieu of SO<sub>2</sub> emissions testing providing:
  - A. the as-fired fuel sample is analyzed for % Sulfur content and gross calorific value using the most recent revision or designation of ASTM procedure ASTM-D-240.
  - B. timely, accurate and certified submittals of fuel usage are submitted per permit specific conditions.
2. I disapprove of any opacity standard in lieu of particulate emissions testing as assurance or verification of compliance.
3. I do tolerate a 0% opacity in lieu of particulate emissions % testing. A source continually operating at their permit rate, with no visible emissions, is emitting essentially no particulate matter. Limiting, reducing and/or eliminating particulate emissions is one of DER's goals and the concerned public.

My disapproval above is based on the Completion of Construction tests conducted during April 1982 and Permit conditions stipulating that 3 boilers will operate simultaneously. Boilers 1, 2, & 4 emitted 21.5<sup>#</sup> TSP/hr (94TPY) while operating from 82 to 86% of the requested heat input. This emission is 86% of the allowable estimate of 24.9<sup>#</sup> TSP/hr. No VE observations were noted or submitted for the tests. These test results indicate marginal compliance with less than requested heat input and is no indication of compliance with the higher requested heat input.

SBM

DEPARTMENT OF ENVIRONMENTAL REGULATION

<b>ROUTING AND TRANSMITTAL SLIP</b>	ACTION NO
	ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)	INITIAL
<b>BRUCE MITCHELL BAQM</b>	DATE
2.	INITIAL
	DATE
3.	INITIAL
	DATE
4.	INITIAL
	DATE

REMARKS:

DER  
OCT 12 1982  
BAQM

INFORMATION	
<input type="checkbox"/>	REVIEW & RETURN
<input type="checkbox"/>	REVIEW & FILE
<input type="checkbox"/>	INITIAL & FORWARD
DISPOSITION	
<input type="checkbox"/>	REVIEW & RESPOND
<input type="checkbox"/>	PREPARE RESPONSE
<input type="checkbox"/>	FOR MY SIGNATURE
<input type="checkbox"/>	FOR YOUR SIGNATURE
<input type="checkbox"/>	LET'S DISCUSS
<input type="checkbox"/>	SET UP MEETING
<input type="checkbox"/>	INVESTIGATE & RESP
<input type="checkbox"/>	INITIAL & FORWARD
<input type="checkbox"/>	DISTRIBUTE
<input type="checkbox"/>	CONCURRENCE
<input type="checkbox"/>	FOR PROCESSING
<input type="checkbox"/>	INITIAL & RETURN

FROM: <b>John K.</b>	DATE
	PHONE

State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee		
To: _____	Loctn.: <u>10 SD-B</u>	
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
From: _____	Date: _____	
Reply Optional [ ]	Reply Required [ ]	Info. Only [ ]
Date Due: _____	Date Due: _____	

TO : Bruce Mitchell

FROM : Jack Preece *Jack*

DATE : October 6, 1982

SUBJECT: Alternate Standards and Procedures Requested  
by Anheuser-Busch Companies - File No. ASP-J01-82

10/20/1982  
COM

As requested in subject file, we offer the following comments.

1. The size of the boilers are not mentioned nor is the particulate standard which is to be replaced or the visible emissions standard proposed. Also, to judge this request one should have a record of past particulate tests v.s. concurrent visible emission observations.

Comments on a few hypothetical situations are:

- a. If the boilers exceed 250 MMBtu/hr the answer is No.
  - b. If below 250 MMBtu/hr - O.K. to specify a V.E. standard that has been demonstrated during stack testing which proved compliance (not more than 20% and preferably much less).
2. Fuel oil sulfur content as a substitute for SO<sub>2</sub> emission tests should be approved. If the allowed sulfur content to meet the SO<sub>2</sub> standard exceeds that used during particulates testing, requirement to notify prior to actual use and ~~perform~~ particulate tests should be performed.

JP/jps



STATE OF FLORIDA

DEPARTMENT OF

# Health & Rehabilitative Services

District Nine  
P. O. Box 29

Bob Graham, Governor

Palm Beach County Health Dept.  
West Palm Beach, Florida 33402

Please Address  
Reply to:

October 4, 1982

DER  
OCT 08 1982  
BAQM

Mr. Bruce Mitchell  
Department of Environmental  
Regulation  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32301

RE: Alternative Standards  
and Procedures  
Anheuser-Bush Companies-File #ASP-J01-82

Dear Mr. Mitchell:

This agency has reviewed Mr. Bill Blommels memorandum of September 22, 1982 and attachments regarding the above referenced matter.

This agency is in agreement with both Anheuser-Bush's petition and the Jacksonville local programs' approval to use visible emission and fuel oil analysis (% sulfur content) as surrogate test for particulate and sulfur dioxide testing.

Sincerely,

For the Division Director  
Environmental Sciences & Engineering

Michael J. Martin  
Air Pollution Control

FJG/MJM/mc



State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee		
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
From: _____	Date: _____	
Reply Optional [ ]	Reply Required [ ]	Info. Only [ ]
Date Due: _____	Date Due: _____	

TO: Victoria J. Tschinkel, Secretary  
FROM: Steve Smallwood, Bureau Chief, BAQM  
DATE: September 29, 1982

*Clayton James*

RECEIVED

OCT 4 1982

Office of the Secretary

SUBJ: Approval and signature of a modification to the construction permit, No. AC 16-39951, for Anheuser-Busch Companies, Inc., issued October 22, 1981.

Enclosed is an amendment to the referenced construction permit that has been approved by the Bureau.

SS/bmm

Enclosure

September 29, 1982

Mr. Donald M. DeHart  
Senior Environmental Engineer  
Anheuser-Busch Companies, Inc.  
One Busch Place  
St. Louis, Missouri 63118

Re: Modification of Construction Permit AC 16-39951

Dear Mr. DeHart:

The Bureau is in receipt of your request for a modification of your construction permit, No. AC 16-39951, issued October 22, 1981. The request is acceptable and the condition is changed and added as follows:

Specific Condition:

From: No. 1: Maximum allowable emissions from the facility will be:

<u>Pollutant</u>	<u>lb/hr.</u>	<u>Ton/yr.</u>
Particulate	10 lb/hr (per boiler)	21.2 (per boiler)
Sulfur Dioxide	250 lb/hr (per boiler)	530.0 (per boiler)
Nitrogen Dioxide	40 lb/hr (per boiler)	85.0 (per boiler)

To: No. 1: Maximum allowable emissions from the facility shall not exceed:

<u>Pollutant</u>	<u>lb/hr.</u>	<u>TPY</u>
Particulate	10 (per boiler)	84.8 (total-4 boilers)
SO <sub>2</sub>	250 (per boiler)	2120.0 (total-4 boilers)
NO <sub>2</sub>	40 (per boiler)	340.0 (total-4 boilers)

Donald M. DeHart  
September 29, 1982  
Page Two

Attachments to be included are:

2. Don DeHart's letter dated May 12, 1982.
3. Jerry Woosley's letter dated June 8, 1982.
4. Steve Smallwood's letter dated July 19, 1982.
5. Don DeHart's letter dated September 22, 1982.

This letter and attachments must be attached to your permit (AC 16-39951) and becomes a part of that permit.

Sincerely,

Victoria J. Tschinkel  
Secretary

VJT/bmm

cc: Jerry Woosley  
John Ketteringham  
Martha Harrell Hall



## ANHEUSER-BUSCH COMPANIES

September 22, 1982

Mr. Clair H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management  
Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32301

RE: Permit AC16-39951  
Boiler Modification  
Jacksonville Brewery

DER  
SEP 27 1982  
BAQM

Dear Mr. Fancy:

Pursuant to my phone conversation today with Mr. Bruce Mitchell of your office, Anheuser-Busch requests that the Construction Permit AC16-39951 be amended. This amendment will not increase the allowable emissions from the facility as stated in the permit.

Anheuser-Busch requests that Specific Condition No. 1 be amended so that the annual maximum allowable emissions from the facility be 84.8 tons particulates, 2120.0 tons SO<sub>2</sub>, and 340.0 tons NO<sub>x</sub>. This Condition presently specifies the annual maximum allowable emissions on a per-boiler basis.

This change in Specific Condition No. 1 would allow our brewery personnel more flexibility in that each boiler could be used unequally if circumstances required it. This amendment will also coordinate better with Specific Condition No. 4 which contains a facility limitation on the quantity of fuel oil that can be used in any calendar year. In addition, the facility's annual maximum emissions will remain the same.

I understand that, if this request is granted, the construction permit amendment will result in a similar change in the operating permit. The Jacksonville Bio-Environmental Services Division is presently preparing to issue the operating permit for this facility.

Mr. Clair H. Fancy

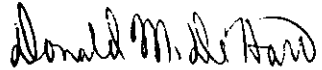
-2-

September 22, 1982

Your prompt consideration of the request for permit amendment will be appreciated. If you have any questions or need additional information, please contact me at the St. Louis office. My phone number is (314) 577-4158.

Very truly yours,

ANHEUSER-BUSCH COMPANIES, INC.



Donald M. DeHart  
Environmental Engineer

DMD:cmh

cc Mr. J. E. Woosley  
Jacksonville Bio-Environmental Services

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control

September 1, 1982



Mr. Don DeHart  
Engineer  
Anheuser-Busch, Inc.  
721 Pestalozzi St.  
St. Louis, Missouri 63118

DER  
SEP 07 1982  
BAQM

Re: Boilers, Jacksonville Brewery

Dear Mr. DeHart:

Enclosed is the draft copy of the Operation Permit for the #1-#4 power boilers at the Jacksonville Brewery. The following comments are provided concerning the emission and operational limitations imposed:

- (1) Each boiler is limited to a maximum heat input per hour based on the stack tests conducted during April 1981. The maximum heat input is set at the testing rate plus 10%.
- (2) The particulate, SO<sub>2</sub>, and NO<sub>x</sub> pounds per hour limitations are based upon the following emission factors:
  - (A) 0.1 lbs particulate per million BTU heat input.
  - (B) 2.5 lbs SO<sub>2</sub> per million BTU heat input (equivalent to the use of 2.28% Sulfur content fuel oil).
  - (C) 60 lbs NO<sub>x</sub> per 1000 gallons oil burned (AP-42 emission factors).
- (3) In order to avoid a Prevention of Significant Deterioration (PSD) review, the tons per year limitations are imposed using the above emission factors and a fuel restriction of 11,312,000 gallons per year total. This total fuel consumption figure was derived from the 1979 fuel consumption figure of 2,828,000 gallons (in the construction permit application) for boiler #1 as a representative base figure (2,828,000 gallons per year X 4 boilers equals 11,312,000 gallons per year).
- (4) The 24 hour fuel restriction (57,920 gallons) assumes all 4 boilers operating at maximum permitted capacity 24 hours per day and 150,000 BTU's per gallon of fuel utilized.

If you have any questions concerning this matter, please contact me on or before September 9, 1982.

Very truly yours,

JEW/vj  
Enclosure

Jerry E. Woosley  
Assistant Engineer

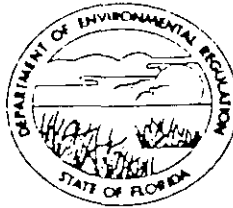
cc: Mr. Tom Martin (Anheuser-Busch)  
✓ cc: Mr. Bruce Mitchell (DER) with enclosure



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER  
SUBDISTRICT

3426 BILLS ROAD,  
JACKSONVILLE, FLORIDA 32207



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

G. DOUG DUTTON  
SUBDISTRICT MANAGER

APPLICANT: Anheuser-Busch, Inc.  
P. O. Box 18017, A.M.F.  
Jacksonville, Florida 32229

PERMIT/CERTIFICATION  
NO. A016-54240

COUNTY: Duval

PROJECT: Four (4) Oil Fired  
Power Boilers

**DRAFT**

APIS

Boiler 1 31-16-0006-01  
Boiler 2 31-16-0006-02  
Boiler 3 31-16-0006-03  
Boiler 4 31-16-0006-04

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2  
and 17-4, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to  
perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and  
made a part hereof and specifically described as follows:

For the operation of four (4) #6 oil fired boilers for the  
production of steam.

Located at 111 Busch Drive, Jacksonville, Florida 32229  
UTM E - 7439.300 N - 3366.820

In accordance with the application received on March 31, 1982,  
and additional information received on May 11, 1982 and August 23,  
1982.

**DRAFT**

PERMIT NO.: A016-54240  
APPLICANT: Anheuser-Busch, Inc.

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions", and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate court action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.
2. This permit is valid only for the specific processes and operations indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.
3. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information: (a) a description of and cause of non-compliance; and (b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.
4. As provided in subsection 403.087(6), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.
6. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.111, F.S.
7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.
8. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant, or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.
9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.
10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.
11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.
12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
13. This permit also constitutes:
  - Determination of Best Available Control Technology (BACT)
  - Determination of Prevention of Significant Deterioration (PSD)
  - Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)



Specific Condition:

1. Supporting documents are retained in the office file to which they were submitted and not attached as stated in the leading paragraph and General Condition No. 2. They are as follows:

- A. Plot plans and diagrams
- B. Permit AC16-39951 and attachments

2. The maximum allowable emission rate for each pollutant is as follows:

Pollutant	Emission Rate	Maximum Allowable Emission
-----------	---------------	----------------------------

See Specific Condition No. 8

**DRAFT**

3. Testing of emissions shall be accomplished at 90% to 100% of the permitted capacity. If testing is performed at a rate less than 90% of the permitted capacity, operation shall be limited to that capacity until such time as an acceptable test is performed at 90% to 100% of permitted capacity. When operation is restricted to a lower capacity, because of testing at such a level, the Department/Bio-Environmental Services Division, upon advanced notification, will allow operation at higher capacities if such operation is for demonstrating compliance at a higher capacity (never to exceed design capacity).

4. Notify the Jacksonville Bio-Environmental Services Division (BESD) 14 days prior to source testing. Copies of the test report(s) shall be submitted to BESD within 30 days after completion of testing.

5. The following pollutant(s) shall be tested at intervals indicated from the date of July 1, 1982.

- Particulates - On request
- \*Visible Emissions - 12 months
- \*\*Sulphur Dioxide - 12 months

9/7/82  
3:15 PM  
Steve P...  
D

- \*Boilers 1 through 4
- \*\*Fuel oil analysis may be substituted

6. Submit an annual operation report to BESD for this source on the form supplied for each calendar year on or before March 1.

7. Any revision(s) to a permit (and application) must be submitted and approved prior to implementing.

Permit No.: A016-54240  
Applicant: Anheuser-Busch, Inc.

**DRAFT**

Specific Conditions:

8. Maximum allowable emissions are as follows:

Boiler	Particulate		Sulphur Dioxide		Nitrogen Oxide	
	lbs/hr	T/yr	lbs/hr	T/yr	lbs/hr	T/yr
1	9.5	21.2	237.5	530	38.0	85
2	8.6	21.2	215.0	530	34.4	85
3	9.1	21.2	227.5	530	36.4	85
4	9.0	21.2	225.0	530	36.0	85

9. The maximum fuel oil input per day (24 hours) shall be 57,920 gallons. The maximum fuel oil input per year shall be 11,312,000 gallons.
10. The sulphur content of the fuel oil is limited to 2.28% by weight.
11. Operation is limited to 8760 hours per year per boiler; 35,040 hours per year total.
12. Anheuser-Busch, Inc. shall keep records of the following parameters:
- (A) Fuel consumed per boiler per calendar quarter.
  - (B) Operating hours per boiler per calendar quarter.
- These records shall be submitted to BESD in conjunction with Specific Condition No. 6.
13. Boilers 1-4 are limited to a maximum input of 95, 86, 91, and 90 million BTUs per hour respectively.
14. Visible emissions are limited to 20% opacity on each boiler.

Expiration Date: July 31, 1987 Issued this      day of      19    

City of Jacksonville  
Bio-Environmental Services

State of Florida  
Department of Environmental Regulation

Donald C. Bayly, Division Chief

Doug Dutton, Subdistrict Manager

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

*July*

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

July 19, 1982

Mr. Don Dehart  
Senior Environmental Engineer  
Environmental Engineering and Resources  
c/o Anheuser Busch Companies, Inc.  
One Busch Place  
St. Louis, Missouri 63118

RE: Construction Permit AC 16-39951 issued on October 22,  
1981, for Anheuser Busch, Inc. - Jacksonville, Florida

Dear Mr. Dehart:

As requested, the following items were discussed by telephone on May 27, 1982, concerning your company's request for an operating permit to Bio-Environmental Services (BES) of Jacksonville, Duval County, Florida:

1. The "application to operate an air pollution source" to BES requested allowable emission limits that exceeded those limits contained in the referenced construction permit, which was "Public Noticed". The "Public Noticed" emission limits are based on a representative year, 1979, chosen by your company to reflect the historical actual emissions as part of the initial prevention of significant deterioration (PSD) review. The company's intent was to avoid PSD review by not increasing any pollutant emissions above the historical actual emissions. This is how the current construction permit was issued and accepted by the company (no comments were received during the allowed comment period). Therefore, if your request for an operating permit is not amended to reflect the maximum allowable emission limits contained in the referenced construction permit, the operating permit cannot be granted in accordance with Chapter 17-2.500(6)(b), Florida Administrative Code (FAC).

Don Dehart  
July 19, 1982  
Page Two

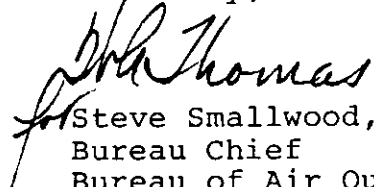
2. If your company does want allowable emission limits above those contained in the referenced construction permit, submit to the BAQM-DER an application to "construct/modify an air pollution source". A review for PSD will be required according to Chapter 17-2.500, Florida Administrative Code (FAC) and the "Technical Review and Preliminary Determination" will be "Public Noticed" for the required 30-day period.

3. There were, as discussed, two typographical errors contained in the referenced construction permit:

- a. Specific Condition No. 2: Total boiler operation hours should have read 35,040 hours.
- b. Specific Condition No. 4: The correct maximum fuel allowed to be fired by Boilers 1-4, totally, should have read  $15.441 \times 10^6$  gallons per year (42,304 maximum gallons per 24-hour period), which is based on  $2,316,144 \times 10^6$  Btu Heat Input, total annual maximum allowed for the 4 boilers ( $66.1 \times 10^6$  Btu Heat Input maximum per boiler per hour), 8760 hours per year per boiler, and 150,000 Btu per gallon (heat content).

If there are any questions, please call Bruce Mitchell at (904) 488-1344 or write to me at the above address.

Sincerely,

  
for Steve Smallwood, P.E.  
Bureau Chief  
Bureau of Air Quality  
Management

SS/RBM/bjm

cc: Jerry Woosley  
Doug Dutton  
Martha Harrell Hall

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control

June 8, 1982



Mr. John Mueller, Plant Manager  
Anheuser Busch, Inc.  
P.O. Box 18017  
AMF  
Jacksonville, Florida 32229

JUN 11 1982

BAM

Re: Permit AC16-39951 - (Four Boilers)

Dear Mr. Mueller:

The Operation Permit application for the four boilers at your facility is currently under review by Mr. Don Dehart of your St. Louis office and Mr. Bruce Mitchell, Department of Environmental Regulation, Tallahassee, Florida. The emission limits applied for in the Operation Permit differ appreciably from the emission limits imposed in Construction Permit AC16-39951.

In order to allow sufficient time for resolution of these differences, I have enclosed a waiver form which, when properly executed, will extend the permit processing period to September 30, 1982. Please complete the waiver form in full and return to this Agency on or before June 18, 1982. Failure to submit a duly executed waiver in the time frame outlined, could result in the issuance of a letter of Intent to Deny the subject permit application.

If I can be of further assistance in this matter, please advise.

Very truly yours,

Jerry E. Woosley  
Assistant Engineer

JEW/vj

Enclosure

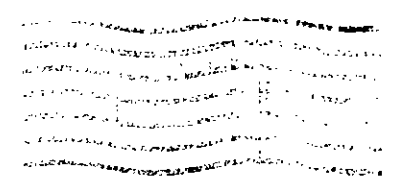
cc: Mr. Don Dehart, without enclosure  
✓ cc: Mr. Bruce Mitchell, without enclosure  
cc: Mr. Doug Dutton, without enclosure



EIO-ENVIRONMENTAL SERVICES  
Air and Water Pollution Control  
515 W. 6th Street  
Jacksonville, Florida 32206-4397



Mr. Bruce Mitchell  
Dept. of Environmental Regulation  
Twin Towers Office Building  
2600 Blainstone Road  
Tallahassee, Florida 32301



DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control

May 12, 1982



MAY 17 1982  
EPA

Mr. Clair Fancy  
Central Air Permitting Section  
Department of Environmental Regulation  
2600 Blainstone Road  
Tallahassee, Florida 32301

Re: Anheuser Busch - No. 1-4 Boilers

Dear Mr. Fancy:

During my review of the Operation Permit application for the captioned sources, some discrepancies have been noted between the Construction Permit AC16-39951 and the information provided in the Operating Permit application. The discrepancies are listed as follows:

Specific Condition No. 1

<u>Pollutant</u>	<u>Construction Permit</u>	<u>Operating Permit Application</u>
Particulate	21.2 T/yr (per boiler)	28.95 T/yr (per boiler)
Sulfur Dioxide	530 T/yr (per boiler)	723.8 T/yr (per boiler)
Nitrogen Oxides	85 T/yr (per boiler)	115.8 T/yr (per boiler)

Specific Condition No. 2

16,528 total boiler hours per year	35,040 total boiler hours per year
---------------------------------------	---------------------------------------

Specific Condition No. 4

44.5 X 10 <sup>6</sup> gallons per year	15.5 X 10 <sup>6</sup> gallons per year
--	--

It is noted that the 15.5 X 10<sup>6</sup> gallons per year fuel consumption is approximately equivalent to the previous permitted maximum allowable firing rate of 66.1 X 10<sup>6</sup> BTU per hour per boiler operating 8760 hours per year.

It is requested that your office make a determination as to the proper emission limits and proper wording for the Specific Conditions. If you have any questions concerning the Operation Permit application, please contact Mr. Don Dehart at (314) 577-4158 or write to him at:

Mr. Don Dehart  
Senior Environmental Engineer  
Environmental Engineering and



Resources Department  
Anheuser Busch Companies, Inc.  
One Busch Place  
St. Louis, Mo. 63118

In order to complete the processing of the Operation Permit in a timely manner, it is requested that these issues be resolved by May 30, 1982.

If I may be of further assistance, please advise.

Very truly yours,



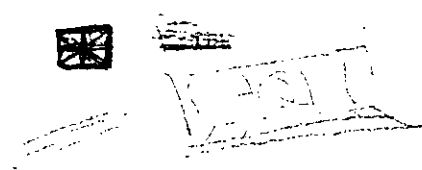
Jerry E. Woosley  
Assistant Engineer

JEW/vj

cc: Mr. Don Dehart (Anheuser Busch)  
cc: Mr. Tom Martin (Anheuser Busch)  
cc: Mr. Bruce Mitchell (DER)



wait to call  
A.N. Bush  
St. Louis  
Don DeHart  
(314) 241-1885



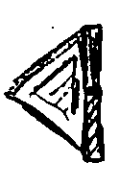
State  
x  
Federal

E. Calducci indicated in telegram on March 19 that all four boilers will undergo increase in capacity from 66 to 100 MMBTU, and stack increases to 100 ft.

Permit renewals were withdrawn in Tex and one new application for all 4 boilers entered at Tex - also fee coming to Tex, the Ed will send over. See his letter of incompleteness

Ed B. thinks SO<sub>2</sub> will increase by 8.5 TPY per boiler; TSP to increase by ~ 12.3 TPY per boiler according to him - maybe less. Under 50 TPY increase in Particulate? (close)

100 BTU or 80,000# steam





ANHEUSER-BUSCH COMPANIES

# Inter-Office Correspondence

**RECEIVED**

MAR 22 1982

March 19, 1982

TO: Mr. T. Martin

cc: Messrs. J. Mueller

R. R. Imsande

J. L. Stein

FROM: Mr. D. M. DeHart

JACKSONVILLE  
ENGINEERING DEPT.

Operating Permit for  
Jacksonville Boilers

Enclosed is a Certificate of Completion of Construction which accompanied Mr. J. E. Woosley's March 2, 1982 letter to me. You also received a copy of this letter. I have filled out the Certificate to reflect our current situation as far as the test results and maximum firing rates for each boiler are concerned. The construction permit dates may seem unusual but those were the dates requested by Mr. Woosley of the Jacksonville Bio-Environmental Services (JBES). This Certificate is ready to be signed by Mr. Mueller and then sealed by a Florida professional engineer.

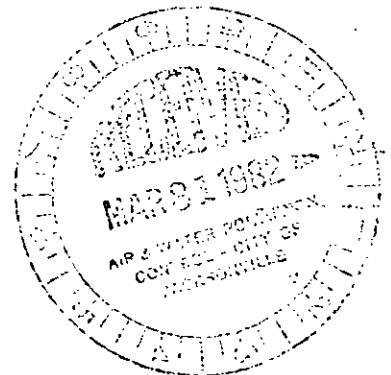
Accompanying the Certificate are several pages of calculations and discussion which point out the minor changes that have been made to the maximum firing rate for each boiler and which attempt to correct errors in the construction permit AC 16-39951 and to clarify how the annual boiler emission limits can be written for maximum flexibility. I have also included two letters dated August 5, 1981 and November 3, 1981, which were referenced in the discussion. This entire "package" should accompany the Certificate when it is submitted to the JBES.

The accompanying "package" should satisfy Item (4) of Mr. Woosley's letter. Item (3) is included on the filled out Certificate. You have stated that you will take care of Items (2) and (5). Once the Certificate is signed and sealed then Item (1) will be complete.

Please submit all of the required items to the JBES per Mr. Woosley's letter. If you have any questions, don't hesitate to call.

*D. M. DeHart*

DMD/bkb  
Enc.





STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

AIR POLLUTION SOURCES  
CERTIFICATE OF COMPLETION OF CONSTRUCTION\*

PERMIT NO. AC 16-39951 DATE: January 25, 1982

Company Name: Anheuser-Busch, Inc. County: Duval

Source Identification(s): Boilers 1, 2, 3, and 4

Actual costs of serving pollution control purpose: \$ -0- \*million (10<sup>6</sup>) BTU/hr  
 Max. Allowable No. 1 - 95\* No. 3 - 91\*  
 Operating Rates: No. 2 - 86\* No. 4 - 90\* Design Capacity: 100 x 10<sup>6</sup> BTU/hr/boiler

Expected Normal \_\_\_\_\_ During Compliance Test No. 1 - 85.7\* No. 3 - 81.7\*  
 No. 2 - 77.2\* No. 4 - 81.4\*

Date of Compliance Test: April 21, 22, 23, 1981 (Attach detailed test report) Submitted to JBES

Boiler No.	Pollutant	Actual Discharge	Allowed Discharge
1	Particulate	8.06 lb/hr**	8.57 lb/hr
2	Particulate	6.57 lb/hr	7.72 lb/hr
3	Particulate	5.49 lb/hr	8.17 lb/hr
4	Particulate	6.83 lb/hr	8.14 lb/hr

Date plant placed in operation: November 10, 1981 \*\*Disregarded 1st run of 3.

This is to certify that, with the exception of deviations noted\*\*, the construction of the project has been completed in accordance with the application to construct and Construction Permit No. AC 16-39951 dated September 22, 1981.

A. Applicant: John Mueller Plant Manager  
 Name of Person Signing (Type) Signature of Owner or Authorized Representative and Title

Date: \_\_\_\_\_ Telephone: (904) 751-0700

B. Professional Engineer: CHARLES M. NOLAN  
 Name of Person Signing (Type) Signature of Professional Engineer

Pat Nolan & Associates Florida Registration No. 19839  
 Company Name Date: 3-26-82

8141 Sierra Madre Dr.W., Jax., Fla. 32217  
 Mailing Address  
(904) 737-7468  
 Telephone Number

\*This form, satisfactorily completed, submitted in conjunction with an existing application to construct permit and payment of application processing fee will be accepted in lieu of an application to operate.

\*\*As built, if not built as indicated include process flow sketch, plot plan sketch, and updates of applicable pages of application form.

ANHEUSER-BUSCH, INC.  
 JACKSONVILLE BREWERY  
 Permit AC16-39951  
 Permit Deviations  
 March 18, 1982

1. Maximum Allowable Firing Rate (Input)

Based on firing rates for emissions test of April 21, 22, 23, 1981.

<u>Boiler No.</u>	<u>Input during test, 10<sup>6</sup> BTU/hr ave.</u>	<u>Maximum allowable Input, 10<sup>6</sup> BTU/hr*</u>
1	85.7	95
2	77.2	86
3	81.7	91
4	81.4	<u>90</u>
Total, Facility		362

\*See Mr. E. P. Balducci's letter of August 5, 1981

2. Maximum Hourly Oil Usage

Bases: The maximum allowable input per boiler and 150,000 BTU/gal for No. 6 fuel oil.

<u>Boiler No.</u>	<u>Max. Input, 10<sup>6</sup> BTU/hr</u>		<u>Oil heat content, gal/10<sup>6</sup> BTU</u>		<u>Max. oil usage, gal/hr</u>
1	95	x	6.6667	=	633.3
2	86	x	6.6667	=	573.3
3	91	x	6.6667	=	606.7
4	90	x	6.6667	=	<u>600.0</u>
Total, Facility					2,413.3

3. Maximum Hourly Emissions

a. Particulate

<u>Boiler No.</u>	<u>Max. Input, 10<sup>6</sup> BTU/hr</u>		<u>Florida allowable, lb/10<sup>6</sup> BTU Input</u>		<u>Max. Emissions lb/hr</u>
1	95	x	0.1	=	9.5
2	86	x	0.1	=	8.6
3	91	x	0.1	=	9.1
4	90	x	0.1	=	<u>9.0</u>
Total, Facility					36.2

b. SO<sub>2</sub>

<u>Boiler No.</u>	<u>Max. Input, 10<sup>6</sup> BTU/hr</u>		<u>Florida allowable, lb/10<sup>6</sup> BTU Input</u>		<u>Max. Emissions lb/hr</u>
1	95	x	2.5	=	237.5
2	86	x	2.5	=	215.0
3	91	x	2.5	=	227.5
4	90	x	2.5	=	<u>225.0</u>
Total, Facility					905.0

c. NO<sub>x</sub>

<u>Boiler No.</u>	<u>Max. oil use gal/hr</u>		<u>AP-42 Factor, lb/gal</u>		<u>Max. Emissions lb/hr</u>
1	633.3	x	60/1000	=	38.0
2	573.3	x	0.060	=	34.4
3	606.7	x	0.060	=	36.4
4	600.0	x	0.060	=	<u>36.0</u>
Total, Facility					144.8

4. Actual Annual Emissions

The facility (all 4 boilers combined) actual emissions shown in the revised Emission Calculations that accompanied the construction permit application are correct. (Refer to page 2, revision 2 dated 11/2/81). This is equivalent to  $15.5 \times 10^6$  gal/yr of No. 6 fuel oil for the facility. Also the actual emissions per boiler shown in the same calculation is acceptable for particulate  $SO_2$ , and  $NO_x$  if the per boiler emission is averaged over all four boilers. This averaging will allow for unequal boiler use while still maintaining the overall facility emission limit. See my letter of November 3, 1981 to Mr. Carl Bock.

5. Potential Emissions

- a. Hourly Potential Emissions equal the Maximum Hourly Emissions of Section 3 as there are no additional emission control devices on the boilers.
- b. Annual Potential Emissions assume continuous operation or 8760 hr/yr at the presently permitted maximum input of  $66.1 \times 10^6$  BTU/hr/boiler.

	<u>Allowable Emissions, lb/10<sup>6</sup> BTU</u>		<u>Permit Limit, 10<sup>6</sup> BTU/hr</u>		<u>Operating Time, hr/yr</u>		<u>Factor, Ton/2000 lb</u>	=	<u>Annual Potential Emissions, Tons/hr/boiler</u>
Particulate	0.1	x	( 66.1	x	8760	x	0.0005 )	=	28.95
SO <sub>2</sub>	2.5	x	(		289.518		)	=	723.8
NO <sub>x</sub>	$\frac{0.060 \text{ lb}}{\text{gal}}$	x	( 289.518		$\left[ \frac{6.6667 \text{ gal}}{10^6 \text{ BTU}} \right]$		)	=	115.8

6. Allowable Emissions

Basis for allowable emission rates has not changed from page 3 (dated 1/22/81) of the Emission Calculations. Only the maximum firing rates of the boilers have changed. The allowable emissions for particulate and  $SO_2$  on a per boiler basis is identical to the emissions shown in Sections 3a and 3b. Again there is no limit specified for  $NO_x$ .



ANHEUSER-BUSCH COMPANIES

November 3, 1981

Mr. Carl Bock  
Bureau of Air Quality Management  
Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Re: Boiler Operation Modification  
Permit AC 16-39951

Dear Mr. Bock:

Please recall our phone conversations of October 26 and 28, 1981 concerning the above mentioned permit. As we discussed, several areas of the permit were not correctly worded if Anheuser-Busch was to maintain the same annual firing capacity as was allowed in the most recent permits. These permits were referenced in the application revision of 4/14/81 in paragraph IID.

In order to obtain the proper allowance for the firing rates allowed in the previous permits, you requested that the Actual annual emissions in Par. IIIC of the application be amended to show the annual emissions when operating the boilers at the permitted firing rate; namely,  $66.1 \times 10^6$  BTU/hr/boiler input. It is the Actual annual emissions listed by the permittee that is used as a basis for the emission limits of the new permit.

Accordingly, I have enclosed a revised Page 3 of the application plus a revised Page 2 of the Emission Calculations to reflect this change. This should allow you to rewrite Specific Condition 1 of the pending permit to allow the previously permitted annual emissions. As you indicated by phone, the new annual limits would be 28.95 tons particulate/yr/boiler, 723.8 tons  $\text{SO}_2$ /yr/boiler, and 115.8 tons  $\text{NO}_x$ /yr/boiler. The hourly emission rates were okay.

If you will be writing these annual emission limits on a per boiler basis, I offer this suggestion. Make the annual emission limits as an average for the four boilers. This will allow for unequal use of the boilers and still maintain the emission limit for the entire facility.

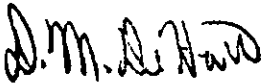
As for the other permit Specific Conditions that we discussed, changing Condition No. 2 to "...not to exceed 35,040 hours per year." is acceptable. Also, in Condition No. 4, correcting the total fuel consumption to "...not to exceed  $15.5 \times 10^6$  gal. in a calendar year." is equivalent to all four boilers operating continuously at  $66.1 \times 10^6$  BTU/hr/boiler input. As for the reporting and record keeping in Conditions No. 5 and 6, you indicated that this should be worked out with the Jacksonville Bio-Environmental Services

Mr. Carl Bock  
November 3, 1981  
Page 2

when we are ready to get the operating permit. With the revised conditions noted above, some of the compliance reporting appears to be unnecessary.

Hopefully, these revisions will lead us to our goal; namely, more flexibility in boiler operation while maintaining the emissions allowed in the current and previous permits. It has been a pleasure working with you even if only by phone and letter. Your continuing cooperation and assistance is appreciated. As before, if any new questions or issues arise, please contact me at my St. Louis office.

Yours truly,



D. M. DeHart  
Senior Environmental  
Engineer

DMD/bkb

Enc.

cc: Mr. R. S. Pace  
Jacksonville Bio-Environmental  
Services w/enc.



**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

A. Raw Materials and Chemicals Used in your Process, if applicable: Rev. 2, 11/2/81

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

- Total Process Input Rate (lbs/hr): for each of four boilers - 86,000 lb/hr max (water-steam)  
- 86,000 lb/hr max (steam)
- Product Weight (lbs/hr): \_\_\_\_\_

C. Airborne Contaminants Emitted: See attached Emission Calculations  
 EACH boiler at  $100 \times 10^6$  BTU/hr input

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	10.0*	28.95	Use 17-2.05(6) Table II	10	10.0	28.95	1,2,3,4
Sulfur Dioxide	250**	723.8	Source "E"(1)(b) 1.a.** (per Mr. E. Balducci)	250	250	723.8	
Nitrogen Oxide	40.0	115.8	None specified	--	40.0	115.8	

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

\* Maximum allowable. Also see emission tests of April, 1981.

\*\* 0.1 lb particulate/ $10^6$  BTU input.  
 2.5 lb SO<sub>2</sub>/ $10^6$  BTU input

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

A. Raw Materials and Chemicals Used in your Process, if applicable:

Rev. 1, 5/28/81

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

- Total Process Input Rate (lbs/hr): for each of four boilers - 90,000 lb/hr max (water-steam)
- Product Weight (lbs/hr): - 90,000 lb/hr max (steam)

C. Airborne Contaminants Emitted: See attached Emission Calculations  
EACH boiler at 100 x 10<sup>6</sup> BTU/hr input

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	10.0*	21.2	Use 17-2.05(6) Table I	10	10.0	43.8	1,2,3,4
Sulfur Dioxide	250**	530	Source "E"(1)(b) 1.a.** (per Mr. E. Balducci)	250	250	1095	
Nitrogen Oxide	40.0	85	None specified	--	40.0	175	

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )

<sup>1</sup> See Section V, Item 2.

\* Maximum allowable. Also see emission tests of April, 1981.

<sup>2</sup> Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

\*\* 0.1 lb particulate per 10<sup>6</sup> BTU heat input.

<sup>3</sup> Calculated from operating rate and applicable standard

<sup>4</sup> Emission, if source operated without control (See Section V, Item 3)

2.5 lb SO<sub>2</sub> per 10<sup>6</sup> BTU heat input

<sup>5</sup> Applicable

D. Maximum Emissions

	(Florida allowable)	x	(capacity input)	=	Max. Emissions
	(lb/10 <sup>6</sup> BTU input)	x	(100 x 10 <sup>6</sup> BTU/hr input)		
Particulate	0.1	x	100	=	10.0 lb/hr/boiler or 40.0 lb/hr/facility
SO <sub>2</sub>	2.5	x	100	=	250 lb/hr/boiler or 1000 lb/hr/facility
NO <sub>x</sub> (Par. IA Factor)	0.060 lb/gal	x	(100/0.150 x 10 <sup>6</sup> BTU/gal)	=	40.0 lb/hr/boiler or 160.0 lb/hr/facility

NOTE: Particulate test results performed in April, 1981, confirm that the boilers meet this standard.

E. Actual Annual Emissions

Basis: 66.1 x 10<sup>6</sup> BTU/hr/boiler for four (4) boilers as limit for permits listed in Par. IID. This is equivalent to an input of 579 x 10<sup>9</sup> BTU/boiler/yr and 2,316 x 10<sup>9</sup> BTU/yr for the facility.

	(Florida allowable)	x	(annual input)	x	$\left(\frac{1 \text{ ton}}{2000 \text{ lb}}\right)$	=	Facility Actual Emissions
	(lb/10 <sup>6</sup> BTU input)		(2,316 x 10 <sup>9</sup> BTU)	/	2000		
Particulate	0.1	x	(2,316,000/2000)			=	115.8 tons/yr or 28.95 tons (ave)/yr/boiler
SO <sub>2</sub>	2.5	x	1158			=	2895 tons/yr or 723.8 tons (ave)/yr/boiler
NO <sub>x</sub> (Par. IA Factor)	$\frac{0.060 \text{ lb}}{\text{gal}}$	x	$\frac{1158}{(0.15 \times 10^6 \text{ BTU/gal})}$			=	463.2 tons/yr or 115.8 tons (ave)/yr/boiler

F. Potential Emissions

- Hourly Potential Emissions equal hourly Maximum Emissions (Par. D) as there are no additional emission control devices on the boilers.
- Annual Potential Emissions assume continuous operation or 8760 hr/yr at the presently permitted maximum of 66.1 x 10<sup>6</sup> BTU/hr/boiler (based on an annual fuel usage.)

$$\left(\frac{\text{Hourly Potential Emission}}{\text{Emission}}\right) \times \left(\frac{\text{Permit Limit}}{\text{Capacity}}\right) \times \left(\frac{\text{Operating Time}}{\text{Time}}\right) \times \left(\frac{1 \text{ ton}}{2000 \text{ lb}}\right) = \text{Annual Potential Emissions}$$

	lb/hr	x	$\left(\frac{66.1 \times 10^6 \text{ BTU/hr}}{100 \times 10^6 \text{ BTU/hr}}\right)$	x	$\left(\frac{8760 \text{ hr}}{\text{yr}}\right)$	x	$\left(\frac{1 \text{ ton}}{2000 \text{ lb}}\right)$	=	
Particulate	10.0	x	0.661(8760/2000)					=	28.95 tons/yr/boiler
SO <sub>2</sub>	250	x	2.895					=	723.8 tons/yr/boiler
NO <sub>x</sub>	40.0	x	2.895					=	115.8 tons/yr/boiler

State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

**INTEROFFICE MEMORANDUM**

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Date Due: _____	Date Due: _____	

TO: File - Anheuser-Busch Company, Inc.  
(Jacksonville - Duval County)

FROM: Bruce Mitchell *BM*

DATE: February 22, 1982

SUBJ: Construction Permit #AC 16-39951 - Correction of  
Specific Condition No. 4.

The correct total consumption of No. 6 Fuel Oil per day (24 hours) should be 64,512 gallons, not the 64,152 gallons as found in the permit issued October 22, 1981.

BM:caa

cc: Jerry Woosley, BES  
J. Ketteringham, SJRS - Jax  
D.M. Dehart, Anheuser-Busch Company, Inc.