Application Routing and Transmittal Sheet - for 2 apple

Air Permitting Supervisor Re	quired Informat	ion for Project S	etup by Admin	S.	
Owner/(Facility Name, if need		Petrosuco-			lo.: 1050001
New Facility (Y/N): W Rel	ocatable (Y/N):		Description:	<u></u>	
Project Name Boiler A	aplacament		-		
Type/Subtype ACE Receive	1: 10/2/01			•	
Fee Submitted: () correct (6)	incorrect	Should Be \$	Q Overio	de Reason (if no	eeded):
Fee Checked By: # Kuns	0.7	Submitted \$	<u>O</u>		
Date: 10/	<i>19/01</i> N	eeded/Refund \$			
@AVP2	<i>'</i>				
Admin Project Setup Informa			1 (1)		
Project No. (1) 004- Initial AF	MS Entry (Initia	ls & Date):	<i>[0](0](0)</i> Vin	is Scan Date:	
Air Permitting Supervisor: Ap Application Assigned To: No. of Hardcopies:	to 005 tempe	raily deleted	ond will be	e reinstate	dafter project
Air Permitting Supervisor Ap	plication Inform	ation	1000	maic g	or Ken Willer
Application Assigned To:	(X NOOR	Date: /	0/11/01	explain	my 2001 1/ 10
Tvo. of Hardcopies.	110. 01 DISKS.		- Confidential	mornation ((/N): //
Application Distribution (hardco	oy/disk): DEP En	gineer: C	County: ——	Other:	
Air Permitting Permit Transf	\$1451753441516S		SANCE I		
Project No.:	Intent/	Proposed (Ti		DE	
Permit No.:	Draft	Stage I	Stage II	KE Final	CEIVED
Engineer transmits permit		Otage 1	Stage II		
to permit supervisor				U	T 22 2001
Permit supervisor transmits	-				
permit to DAPA				BUREAU	OF AIR REGULATION
DAPA transmits permit for					
issuance procedure					
Permit Package Mailed					
ARMS Events Entry			es a la compa		
Air Permitting Supervisor De	ita Fields for Ac	ress System (add	at finallicenanc	a) # de la	
Owner(if different from above):	im r icias, roigize	cess;5/stem;(uca	ut inar axidanc	C) EQUELOCA	
Permit No.:	Issue I	Date:	E	Engineer:	<u></u>
Facility Description:		Source De			
296:	MACT:	<u> </u>	NSPS	S:	
Fuels:	Control '	Equipment:			
Comments:					**
	**************************************	Carlo Car	₹ 81		
Air/Permitting System Update Engineer - Final Permit Copied				. ,	 _
	`			_	
Engineer (Final Title V Permits				I V_zıp\xxxx:	
Engineer - ARMS Summary Scr		permits and admi	n corrections):		
Engineer - ARMS Inventory Da		. 07)			
Permit Secretary - Permit List I					
Permitting Supervisor - copy of	permit to compli	ance section? Ye	es or No:		ĺ



CITROSUCO North America, Inc.

Mr. Gerald J. Kissel, P.E. Air Permitting Supervisor Florida Department of Environmental Protection Southwest District 3804 Coconut Palm Dr. Tampa, Florida 33619

October 1, 2001

OCT \$9 2001

RE: Citrosuco, Lake Wales Plant

Boiler Replacement Air Permit Renewal 105000]

BUREAU OF AIR REGULATION

Dear Mr. Kissel:

As we discussed I am attaching the Application for Air Permit - Title V Source for your review and approval.

We were considering this boiler replacement, due to the dry firing damage of the original permitted unit, as a like kind installation.

We greatly appreciate your assistance in expediting this permit renewal since our Installation timing is critical to the fast approaching Agricultural Season. This boiler is essential to our processing the fruit.

If you have any questions please contact our Engineer or me.

Sincerely;

Ken Miller

You miller

Cc. James A. Carnicelli, P.E., Ridge Professional Group w / attachment.

CITROSUCO North America, Inc.

865 651-7988 - Tell Phone

KEN MILLER Safety & Compliance Director

5937 Highway 60 East P.O. Box 3950

Telephone (863) 696-7400 Fax (863) 696-1092 Lake Wales, FL 33859-3950 E-Mail: kmiller@citrosuco.com



Department of Environmental Protection

Division of Air Resources Management



APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1.	Facility Owner/Company Name: (Citrosuco	Nor	th America, I	nc.
2.	Site Name: Lake Wales Plant				
3.	Facility Identification Number: 10	05001		-	[] Unknown
4.	Facility Location: 5937 Highway 6 Street Address or Other Locator:	0, East			
	City: Lake Wales C	ounty: F	olk		Zip Code: 33898
5.	Relocatable Facility?		6.	Existing Pern	nitted Facility?
	[] Yes [X] No			[X] Yes	[] No
<u>Ap</u>	oplication Contact				
1.	Name and Title of Application Con	tact: Nic	ck Eı	nanual, C. O.	0.
2.	Application Contact Mailing Addre	:SS:			
	Organization/Firm: Citrosuco Nort	h Ameri	ca, Iı	ıc.	
	Street Address: 5937 Highway 60,	East			
	City: Lake Wales	Sta	ate: F	lorida	Zip Code: 33898
3.	Application Contact Telephone Nur	mbers:			
	Telephone: (863) 696-7400	Fa	ax:	(863) 696 - 1	092
<u>A</u> r	oplication Processing Information	(DEP Us	<u>se)</u>		
1.	Date of Receipt of Application:			-	-
2.	Permit Number:		_		
3.	PSD Number (if applicable):	,			
4.	Siting Number (if applicable):				

DEP Form No. 62-210.900(1) - Form

Purpose of Application

Air Operation Permit Application

Th	is	Application for Air Permit is submitted to obtain: (Check one)
[]	Initial Title V air operation permit for an existing facility which is classified as a Title V source.
[]	Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.
		Current construction permit number:
[]	Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.
		Current construction permit number:
		Operation permit number to be revised:
[X	Τ[.	Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)
		Operation permit number to be revised/corrected:
[]	Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.
		Operation permit number to be revised:
		Reason for revision:
Ai	ir (Construction Permit Application
Th	iis	Application for Air Permit is submitted to obtain: (Check one)
[X	[] <i>A</i>	Air construction permit to construct or modify one or more emissions units.
[]	Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
ſ	1	Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

1.	Name and Title of Owner/Authorized Representative or Responsible Official
	Nick Emanual, C. O. O.

2. Owner/Authorized Representative or Responsible Official Mailing Address:

Organization/Firm: Citrosuco North America, Inc.

Street Address: 2937 Highway 60, East

Telephone: (863) 696 - 7400

State: Florida Zip Code: 33898 City: Lake Wales

3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Fax: (863)696 - 1092

4. Owner/Authorized Representative or Responsible Official Statement:

I, the undersigned, am the owner or authorized representative*(check here [], if so) or the responsible official (check here [], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.

Signature

Date

10/1/01

Professional Engineer Certification

1. Professional Engineer Name: James A. Carnicelli, PE

Registration Number: Florida 19727

2. Professional Engineer Mailing Address:

Organization/Firm: Ridge Professional Group Inc.

Street Address: 306 Pilaklakaha Ave, Suite 2

State: Florida City: Auburndale

Zip Code: 33823

3. Professional Engineer Telephone Numbers:

Telephone: (863) 965 - 8821 Fax: (863) 965 - 9660

DEP Form No. 62-210.900(1) - Form

^{*} Attach letter of authorization if not currently on file.

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein*, that:

- (1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
- (2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [X], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature

(seal)

Date

* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
Boiler	Johnson 1000	Renewal	0
	· · · · · · · · · · · · · · · · · · ·		
		_	
			:
		:	<u> </u>

Application Processing Fee

Check one: [] Attached - Amount: \$ [[X]	Not App	licable
----------------------------------------	-----	---------	---------

Construction/Modification Information

	<u> </u>
1.	Description of Proposed Project or Alterations:
	Replacement of existing permitted boiler with identical boiler unit. Existing boiler firebox will be utilized and modified controls installed to update safety systems.
	Projected or Actual Date of Commencement of Construction: 10-1-01
2.	Projected Date of Completion of Construction: 11-1-01

5. Projected Date of Completion of Construction. 11-1-01
Application Comment
This replacement was necessitated due to control system shut down and dry firing in existing unit, which resulted in internal damage. Replacement shall be in like kind to original firebox, new control system and fuel supplied principally by natural gas with #4 diesel fuel backup.

6

DEP Form No. 62-210.900(1) - Form

STATE OF FLORIDA AC 57-15100 & DEPARTMENT OF ENVIRONMENTAL REGULATION

75000 Ad 6-16-84

SOUTHWEST DISTRICT 7601 HIGHWAY 301 NORTH TAMPA, FLORIDA 33610-9544



÷		APPLICATION T BOILER - JOHNS	O OPERATE/CO	NSTRUCT DE	Rp&AQMn	SOURCESOUIA.	0070	S.A.
SOUR	RCE TYPE:	BOILER - JOHNS	STON 1000	[x] New	,l []Exis	tingl	Est Dist.	2001
		[x] Construc	tion [] O _I G COMPANY, I	NC.	} Modificat	ion COUNTY:	POLK	Tampa
Ider	tify the spec	ific emission	point source	e(s) address	ed in this	application	ı (i.e.	Lime
		enturi Scrubbe						
SOUR	RCE LOCATION:	Street 5 mi.	East on S.F	R. 60		_City_Lake	Wales	
		UTM: East 1	7 452.4		North	3085.5		
		Latitude	• <u> </u>	''N	Longitu	ide°	<u>'</u>	_''W
APPI	ICANT NAME AN	D TITLE:						
APPI	.ICANT ADDRESS	. P. O. Bo	ox 231 (5937	Hwy 60 Eas	st) Lake Wa	les, FL 338	59-0231	
			STATEMENTS					
Α.	APPLICANT I am the unde	rsigned owner	or authorize	ed represent	ative* of	ALCOMA PACK	ING COM	PANY, INC
	I certify that permit are transpermit are transpermit are transpermit and instantiation of the state of the s	t the statement ue, correct and contain and contain and contain and contain a manner all the rules and that a personnerly notify	nts made in the decomplete supported the error as to constant and regula mit, if grant the departm	this applicate the best pollution of apply with tions of the late of the ent upon sa	ation for a of my knowl control sou he provision department department le or legal	construction construction of chapt and revision, will be a transfer of	ON Elief. Ilution er 403, ions the non-tran of the p	Further, control Florida reof. I sferable ermitted
*Ati	tach letter of	authorization		Signed:x				
				Name	and Title (Please Type	e)	
				Date: 6/10/	88 Telep	phone No. (81	L3) 696-	1487
в.	PROFESSIONAL	ENGINEER REGIS	STERED IN FLO					
	been designed	ertify that the d/examined by plicable to the ation. There	me and four he treatment	nd to be in and dispos	n conformit al of pollu	y with mod tants chara	ern eng acterize	ineering d in the

1 See Florida Administrative Code Rule 17-2.100(57) and (104)

DER Form 17-1.202(1) Effective October 31, 1982

Page 1 of 12

	the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.					
	Signed Samuel D. Cysche					
	SAMUEL D. UPDIKE					
	Name (Please Type)					
	ALCOMA PACKING COMPANY, INC.					
	Company Name (Please Type) P. O. Box 231, LAKE WALES, FL 33859-0231					
	. Mailing Address (Please Type)					
Flo	rida Registration No. 22652 Date: July 9, 1976 Telephone No. (813) 696-1487					
	SECTION II: GENERAL PROJECT INFORMATION					
Α.	Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.					
	REPLACEMENT OF A JOHNSTON 600 HOP BOILER WITH A JOHNSTON SUPER 509 HIGH EFFICIENCY 1000 HP BOILER - CATALOG # PFTA 1000-4H-200. THIS UNIT SUPPLIES 34,000 LBS STEAM/HR					
	TO CITRUS JUICE EVAPORATORS. THE OWNER WARRENTS THIS BOILER TO BE IN FULL COMPLIANCE					
	WITH CAPTER 17-2					
в.	·					
	Start of Construction September 1, 1988 Completion of Construction October 31, 1988					
с.	Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)					
	N/A					
D.	Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.					
	THIS BOILER REPLACES AN 11-YEAR OLD JOHNSTON UNIT - FDER PERMIT AO 53-141141.					
	R Form 17-1.202(1) fective October 31, 1982 Page 2 of 12					

	power plant, hra/yr 3000; if seasonal, describe: THE CITRUS PROCESSIN	
FRO	OM 2000 TO 3000 HR/YR DEPENDING ON FRUIT SUPPLY. THE SEASON LASTS FROM	M NOVEMBER TO
JUI	+ (POTLER CAN OPERATE 2/ HRS PER DAY HOWEVER SEASON TOTAL - 3	000 HRS.
	PER YEAR.)	
If	this is a new source or major modification, answer the following questes or No)	tions.
1.		NO
• - •	a. If yes, has "offset" been applied?	
	b. If yes, has "Lowest Achievable Emission Rate" been applied?	
	c. If yes, list non-attainment pollutants.	
2.	Does best available control technology (BACT) apply to this source? If yes, see Section VI.	YES
3.	Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII.	. NO
4.	Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?	NO
5.	Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?	МО
D c	o "Reasonably Available Control Technology" (RACT) requirements apply this source?	NO
	a. If yes, for what pollutants?N/A	

Attach all supportive information related to any answer of "Yes". Attach any justifi-

cation for any answer of "No" that might be considered questionable. N/A

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

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

	Contem	inants	Utilization	
Description	Туре	% Wt	Rate - lbe/hr	Relate to Flow Diagram
STEAM			34,000	N/A
•				
				

B. F	Process	Rate,	if	applicable:	(See	Section	٧,	Item 1)	
------	---------	-------	----	-------------	------	---------	----	---------	--

1.	Total Process	Input	Rate	(1bs/hr):	WATER 34,000	LBS/HR
----	---------------	-------	------	-----------	--------------	--------

2. Product Weight (lbs/hr): STEAM 34,000 LBS/HR

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

)	Name of	Emissionl		Allowed ² Emission Rate per	Allowable ³ Emission	Potent: Emiss	Relate to Flow	
1	Contaminant	Maximum lbs/hr	Actual T/yr	Rule 17-2	lbs/hr	lbe/yr	T/yr	Diagram
	so ₂	51	67.6			152,000	76	N/A
	NO*	11.8	17.7			35,400	17.7	
	HYDROCARBONS	.34	.5			1,000	. 5	
	PARTICULATES	4.1	6.1		<u> </u>	12,200	6.1	
	со	1.3	2.0			4,000	2.0	

¹See Section V, Item 2.

(*) ESTIMATES BASED ON AP-42 INFORMATION

DER Form 17-1.202(1) Effective November 30, 1982

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input).

 $^{^{3}}$ Calculated from operating rate and applicable standard.

^{*}Emission, if source operated without control (See Section V, Item 3).

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

Name and Type (Model & Serial No.)	Conteminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels

	Consus	otion*		
Type (Be Specific)	svg/hr	max./hr	Maximum Heat Input (MMBTU/hr)	
# 6 FUEL OIL	1680	2100 LB	38.0	
	<u>.</u>			

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Percent Sulfur:	1.25%	<u></u>	Percent Ash:	0.04		
Density:	8.0	lbs/gal	Typical Percent	Nitrogen:_	.24	
Heat Capacity:	18,750 AVG	BTU/16	150,000	· · · · · · · · · · · · · · · · · · ·		8TU/ga]
ወለውጥፓር፤፤፤ ለጥፍር	MAG HADDACADDAMC	CADDOM MON				
TARTICULATES	, NOX, HIDROCARBONS	, CARBON MON	OXIDE	 		
	le, indicate the pe					
F. If applicab	le, indicate the pe	ercent of fue	el used for space	heating.		
F. If applicab Annual Average G. Indicate li	le, indicate the pe	ercent of fue Ma	el used for space sximum and method of d.	heating.	N/A	
F. If applicab Annual Average G. Indicate li	le, indicate the pe	ercent of fue Ma	el used for space sximum and method of d.	heating.	N/A	

	τι <u></u>			ft.	Stack Di	enete	r:	ft
Gas Flow Rat								04 •F
Water Vapor	Contents	8.2		×	Velocity	:	57.67	FP
		SECT	ION IV:	INCINER	ATOR INFO	RMATI	B M	
Type of Waste		Type I (Rubbish)			ge) (Path			Type VI (Solid By-prod.)
Actual 1b/hr Inciner- ated								
Uncon- trolled (1bs/hr)							· · · · · · · · · · · · · · · · · · ·	·
					·	,,	wk	
Manufactures	r				el No.			
Manufactures	r				el No			
lanufactures	r		Heat R			Fuel		
lanufactures	r	Volume	Heat R	Mod		Fuel		Temperature
Annufacturer Date Constru	ucted	Volume (ft)≯	Heat R	Mod		Fuel		Temperature
Annufacturer Date Constru Primary Cha	uctedamber	Volume (ft)	Heat R (BTU	Mod	Туре	Fuel	BTU/hr	Temperature
Primary Chartes Secondary C	amber Chamber	Volume (ft)	Heat R (BTU	Mod	Туре	Fuel	BTU/hr	Temperature (°f)
Primary Character Construction Construction Construction Character Construction Cas Flow Raise If 50 or mo	amber Chamber t: ore tons p	Volume (ft)	Heat R (BTU Stack Dia ACFM	Mod	Type DS	Fuel CFM*	BTU/hr Stack T	Temperature (°F) Temperature (°F)
Primary Character Construction Construction Construction Character Cas Flow Raises Flow Raises Flow Cas Flow Cas Card cubic in Cas	amber Chamber t: cre tons p	Volume (ft) ft. er day des	Heat R (BTU Stack Dia ACFM ign capaced to 50%	Mod Release I/hr) mater: city, su cexcess	Type DS Dmit the	Fuel CFM* emiss	Stack T Velocity: _ ions.rate i	Temperature (°f) Temp
Manufacturer Date Constru Primary Cha Secondary C Stack Height Gas Flow Rate	amber Chamber t: cre tons p	Volume (ft) ft. er day des	Heat R (BTU Stack Dia ACFM ign capaced to 50%	Mod Release I/hr) imter: ity, su excess cyclone	Type DS Dmit the eir. [] Wet	Fuel CFM+ emiss	Stack T Velocity: _ ions.rate i	Temperature (°F) TempFP in grains per stan

h, etc.):	posal of any						(acrubber	water
BOILER	BLOWDOWN I	3 DISCHARG	ED TO FDE	R LICEN	SED SPR	AY FIELD	 	
			•				 	
							-	

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

- 1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
- 2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2. 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
- 3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
- 4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
- With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
- 6. An B 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
- 7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of air-borne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
- 8. An 8 1/2" \times 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

DER Form 17-1.202(1) Effective November 30, 1982

9.	The appropriate appl	ication fee in accordance	with Rule 17-4.05.	The check should b) e
•	made payable to the	Department of Environment:	al Regulation.	•	

n.	With an application	for operat	ion permit,	attach a Cer	tificate	of C	ompletion	of Con-
	struction indicating	g that the	source was	constructed	as shows	ı in	the cons	truction
	permit.							

	SECTION VI: BEST AVAILA	ABLE CONTROL TECHNOLOGY
Α.	Are standards of performance for new stat applicable to the source?	ionary sources pursuant to 40 C.F.R. Part 60
	[] Yes {X] No	
•	Contaminant	Rate or Concentration
8.	Has EPA declared the best available cont yes, attach copy)	rol technology for this class of sources (If
	[] Yes [X] No	
	Contaminant	Rate or Concentration
_		
с.	What emission levels do you propose as be	est available control technology?
	Contaminant	Rate or Concentration
	so ₂	
	PARTICULATE BASED ON	
	SO2 CONTENT AP-42	
ο.	Describe the existing control and treatme	ent technology (if any).
	1. Control Device/System: REDUCED SULFUR FUEL	2. Operating Principles: N/A
	3. Efficiency:* N/A	4. Capital Costs: : N/A
* E	xplain method of determining	
	R Form 17-1.202(1) fective November 30, 1982 Page	8 of 12

N/A Useful Life: Operating Costa: 6. \$42.000/YR B. Maintenance Cost: 7. Energy: None None Emissions: S02 Rate or Concentration Conteminant 51 LB/HR S02 Stack Parameters 10. Diameter: 2.3 Height: 70 ft. Flow Rate: 13,000 ACFH d. Temperatures ·F. 404 FPS Velocity: 57.67 Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). 1. Control Device: Operating Principles: ь. Efficiency:1 Capital Cost: Useful Life: Operating Cost: Energy: 2 h. Maintenance Cost: g. Availability of construction materials and process chemicals: 1 . Applicability to manufacturing processes: j. Ability to construct with control device, install in available space, and operate within proposed levels: 2. Control Device: b. Operating Principles: Efficiency: 1 d. Capital Cost: c. Useful Life: f. Operating Cost: e. Energy: 2 h. Maintenance Coat: Q. Availability of construction materials and process chemicals: Explain method of determining efficiency. $^{
m Z}$ Energy to be reported in unita of electrical power - KWH design rate. DER Form 17-1.202(1)

Effective November 30, 1982

۱.	Applicability	to	manufacturing	processes
----	---------------	----	---------------	-----------

k. Ability to construct with control device, install in svailable space, and openate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:1

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

q. Energy:²

h. Maintenance Cost:

- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Coats:

a. Useful Life:

f. Operating Cost:

g. Energy: 2

h. Maintenance Cost:

- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency: 1

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy: 2

7. Haintenance Cost:

B. Manufacturer:

- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:

(4) State:

 $^{1}\text{Explain}$ method of determining efficiency. $^{2}\text{Energy}$ to be reported in units of electrical power ~ KWH design rate.

DER Form 17-1.202(1) Effective November 30, 1982

Page 10 of 12

(5) Environmental Manager:	
(6) Telephone No.:	
(7) Emissions: ¹	
Contaminant	Rate or Concentration
(3) Process Rate: 1	
b. (I) Company:	•
(2) Mailing Address:	
(3) City:	(4) State:
(5) Environmental Manager:	
(6) Telephone No.:	
(7) Emissions: 1	
Contaminant	Rate or Concentration
(8) Process Rate: 1	
10. Reason for selection as	nd description of systems:
lApplicant must provide this in available, applicant must state	nformation when available. Should this information not be the reason(s) why.
SECTION VII	- PREVENTION OF SIGNIFICANT DETERIORATION ${ m N/A}$
A. Company Monitored Data	
1no. sites	TSP () 50 ² * Wind spd/dir
Period of Monitoring	month day year month day year
Other data recorded	·
	cal summaries to this application.
*Specify bubbler (B) or continu	ous (C).
DER Form 17-1.202(1) Effective November 30, 1982	Page 11 of 12

	2.	Instrumentation, Field and Laboratory
	8.	Was instrumentation EPA referenced or its equivalent? [] Yes [] No
	ъ.	Was instrumentation calibrated in accordance with Department procedures?
		[] Yes [] No [] Unknown
в.	Met	eorological Data Used for Air Quality Modeling
•	1.	Year(s) of data from // to // month day year
	2.	Surface data obtained from (location)
	3.	Upper air (mixing height) data obtained from (location)
	4.	Stability wind rose (STAR) data obtained from (location)
c.	Com	outer Models Used
	1.	Modified? If yes, attach description.
	2.	Modified? If yes, attach description.
	3.	Modified? If yes, attach description.
	4.	Modified? If yes, attach description.
		ach copies of all final model runs showing input data, receptor locations, and prin le output tables.
D.	Арр	licants Maximum Allowable Emission Data
	Pol	lutant Emission Rate
		TSP grams/sec
		50 ² grams/sec
ε.	Emi	ssion Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

- F. Attach all other information supportive to the PSD review.
- G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.
- H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

DER Form 17-1.202(1) Effective November 30, 1982

(ALCOMA PACKING COMPANY, INC.)

CALCULATION SHEET

AP-42 CALCULATIONS OF EMISSIONS

BASED ON 2100 LB PER HOUR (262 GAL PER HR)

3000 HOURS PER YEAR

INDUSTRIAL BOILER, 38 MM BTU/Hr, Residual Fuel

S = 1.25% Sulfur; N = .24% Nitrogen

$$\frac{1. \quad SO_2}{\frac{157 \times 1.25 \times 262}{1000}} = \frac{51 \text{ lb/hr}}{\frac{51.42 \times 3000}{2000}} = \frac{76 \text{ tons/yr}}{\frac{76 \text{ tons/yr}}{2000}}$$

$$\frac{2. \text{ NO}}{\frac{[22 + 400(.24)^2] 262}{1000}} = \frac{11.8 \text{ lb/hr}}{\frac{2000}{2000}} = \frac{17.7 \text{ tons/yr}}{\frac{17.7 \text{ tons/yr}}{2000}}$$

3. HYDROCARBONS (NonMethane + Methane) = .28 + 1.0 1b/1000 gal
$$\frac{(.28 + 1.0) \times 262}{1000} = \frac{0.34 \text{ lbs/hr}}{2000}$$

$$= \frac{0.5 \text{ tons/yr}}{2000}$$

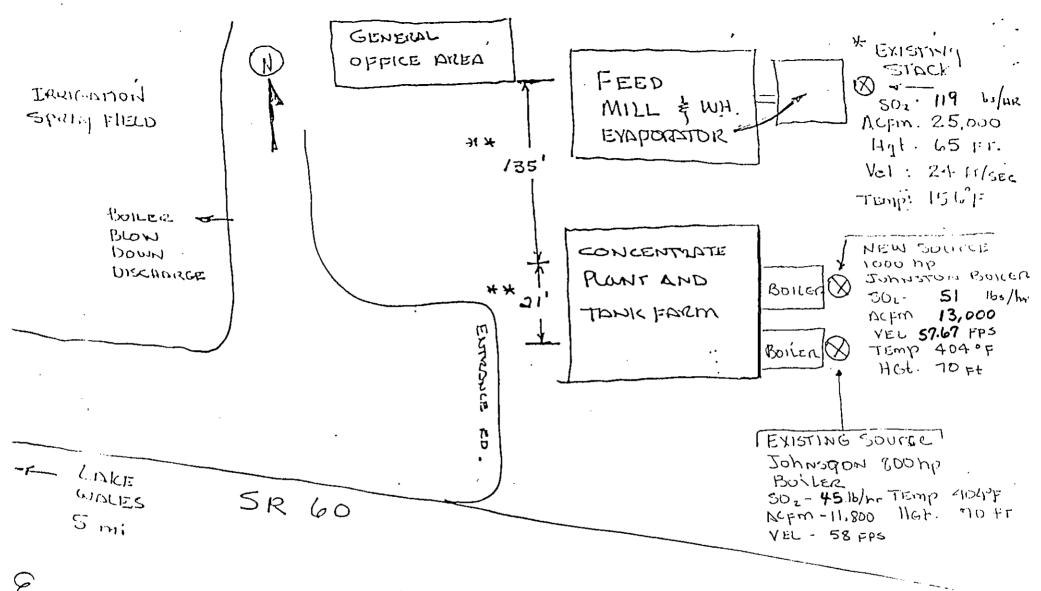
4. PARTICULATE =
$$10 \text{ S} + 3 \text{ lb/1000 gal}$$

$$\frac{[(10 \times 1.25) + 3] \ 262}{1000} = \frac{4.1 \ \text{lbs/hr}}{2000}$$

$$= 6.1 \ \text{tons/yr}$$
5. CO

$$\frac{5 \times 262}{1000} = \frac{1.3 \text{ lb/hr}}{2000} = \frac{2.0 \text{ tons/yr}}{2000}$$

= 157 S 1b/1000 gal



1001125: BOTH EXISTING SOURCES
OPERATE AT

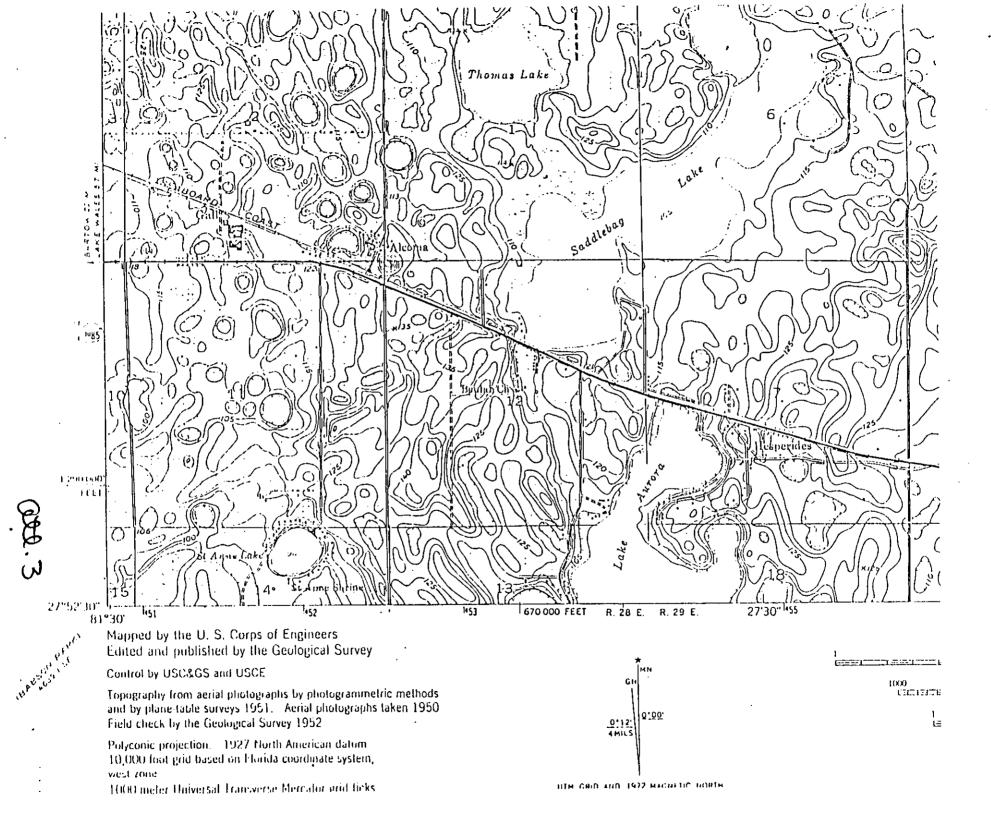
· 1320 lbs/hr @ 1.0°% Sulfur

W.H. = WASTE HEAT EVAPORATOR

* 1985 FDER FEED MILL STACK TEST DATA * DISTANCE BETWEEN STACKS-PE.

Alcamo pocivirio co

Accoma PACKING CO FACILITY LOCATION



UNCONTROLLED EMISSION FACTORS FOR FUEL OIL COMBUSTION EMISSION FACTOR RATING: A

4		culate ^b	Sulfur	Dioxida ^C	Sul	fur Trioxide	Ca	rbon • Kono×ide	d Kitrogen	0xide ^e		Volatile Nonmethan	Organica	f Hethane
Boller Type"	kg/10 ³ 1	1b/10 ³ gal	kg/10 ³ 1	15/10 ³ gat	kg/10 ³ 1	15/10 ³ gal	kg/10 ³ 1	15/10 ³ ga1	kg/10 ³ 1	16/10 ³ gal	kg/10 ³ 1	15/10 ³ ga1	kg/10 ³ 1	1b/10 ³ gal
Utility Boilers Residual Oil	B .	8	193	1578	0.34s ^{lı}	2.95 ^h	0.6	5 (8.0 (12.6)(5) ¹	67 (105)(42) ¹	0.09	0.76	0.03	0.28
Industrial Boilera Residual Uil Distillaté Oil	0.24	8 2	198 178	1578 -1428	0.24S 0.24S	2S 2S	0.6 0.6	5	6.6 ¹ .	55 ^j 20	0.034 0.024	0.28	0.12	1.0
Commercial Boilers Residual Oil Distillate Oil	8 0.24	8 2	195 175	157S 142S	0.248 0.245	25 25	0.6 0.6	5 5	· 6.6 2.4	55 20	0.14 0.04	1.13	0.057 0.026	0.475 0.216
Residential furnace Distiliate Oil	0.3	2.5	178	1425	0.245	28	0.6	5	2.2	18	0.085	0.713	0.214	1.78

Bullers can be approximately classified according to their gross (higher) heat rate as shown below:

Utility (power plant) boilers: >106 x 109 J/hr (>100 x 106 tu/hr)
Industrial boilers: 10.6 x 109 to 106 x 109 J/hr (10 x 106 to 100 x 106 Btu/hr)
Commercial boilers: 0.5 x 109 to 10.6 x 109 J/hr (0.5 x 106 to 10 x 106 Btu/hr)
Residential furnaces: <0.5 x 109 J/hr (<0.5 x 106 to 10 x 106 Btu/hr)

Beferences 3-7 and 24-25. Particulate matter is defined in this section as that susterial collected by EPA Hethod 5 (front half catch).

References 1-5. S indicates that the weight X of sulfur in the oil should be multiplied by the value given.

References 3-5 and 8-10. Carbon monoxide emissions may increase by factors of 10 to 100 if the unit is improperly operated or not well maintained.

Expressed as NO2. References 1-5, 8-11, 17 and 26. Test results indicate that at least 95% by weight of NOx is NO for all boiler types except residential furnaces, where about 75% is NO.

References 18-21. Volatile organic compound emissions are generally negligible unless boiler is improperly operated or not well maintained, in which case

emissions may increase by several orders of magnitude.

Sparticulate emission factors for residual oil combustion are, on sverage, a function of fuel oil grade and sulfur content: 1.25(S) + 0.38 kg/102 liter [10(S) + 3 lb/103 gal] where S is the weight X of sulfur in the oil. This relationship is

based on 81 individual tests and has a correlation coefficient of 0.65.

Grade 5 oil: 1.25 kg/103 liter (10 1b/103 gal)

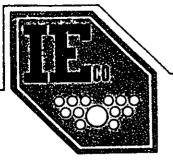
10(5) + 3 Ur Grade 4 oll: 0.88 kg/103 liter (7 lb/103 gal)

Use 5 kg/103 litera (42 lb/103 gal) for tangentially fired boilers, 12.6 kg/103 litera (105 lb/103gal) for vertical fired boilers, and 8.0 kg/103 litera (67 lb/10 gal) for all others, at full load and normal (>15%) excess air. Several combustion modifications can be employed for NOx reduction: (1) limited excess air can reduce NO, emissions 5-20%, (2) staged combustion 20-40%, (3) using low NOx burners 20-50%, and (4) ammonia injection can reduce NOx emissions 40-70% but may increase emissions of ammonia. Combinations of these modifications have been employed for further reductions in certain boilers. See Reference 23 for a discussion of these and other NOx reducing techniques and their operational and environmental impacts.

Nitrogen oxides emissions from residual oil combustion in industrial and commercial boilers are strongly related to fuel nitrogen content, estimated more

accurately by the empirical relationship:

kg $NO_2/10^3$ liters = 2.75 + $50(N)^2$ [15 $NO_2/10^3$ gal = 22 + $400(N)^2$] where N is the weight X of nitrogen in the oil. For residual oils having high (>0.5 weight 2) nitrogen content, use 15 kg NO2/103 liter (120 lb NO2/103gal) as an emission factor.



Industrial Engineering Co.

2407 JOHN YOUNG PARKWAY ORLANDO, FLORIDA 32804 (407) 293-9317 FL WATS: NAT WATS: FAX: 1-800-432-6304 1-800-325-5997 1-407-290-2381

JUNE 10, 1988

ALCOMA PACKING
P. O. BOX 231
Lake Wales, FL 33853

ATTN: Mr. Sam Updike

SUBJECT: New Boiler Information

Dear Sam,

Regarding technical information on the new 1000 H.P. boiler for your DER operating permit, we are pleased to provide the following information.

Exhaust Gas Flow Rate - 13,000 ACFM Exit Gas Temperature - 404°F. Exhaust Gas Water Vapor Content - 8.2% Exhaust Gas Velocity - 57.67 ft. per sec.

Regarding our Invoice #05520 on the steam recorder I agree that this should not be for your account. We paid the service technician to check out the unit, but inasmuch as it never did satisfactorily offer you any usable information, we agreed that you are not liable for this bill. We will credit it off the records. So, please disregard it.

Thank you for allowing us to submit the above information.

Sincerely,

DOUGLAS L. FILLMON

DLF/AFS

SGS Control Services Inc.

Redwood Petroleum and Petrochemical Division

P.O. BOX 75009

TEL: (813) 247-3984

TAMPA, FL 33675-0009 TELEX: 441-075

Southwest District Tampa

Analysis Certificate

Date

March 21, 1988

Client

SPC/SHORE TANK 4

To Accompany Report No.

171904

Laboratory Reference No.

LP-8803-120

Client Ref.

Sample Marked

Shore Tank 4 Composite

Sample Description

Described As No. 6 Fuel Oil Top, Middle & Bottom Levels

Sampling Method Sampling Location

SPC/Tampa, FL

In Association with

Discharge Of Barge FLORIDA/Close

Sample Submitted By

SGS Control Services Inc.

Date of Sampling

March 19, 1988

GRAVITY, A.P.I. @ 60°F FLASH POINT, PMCC, °F WATER BY DISTILLATION, % VOL. SEDIMENT BY EXTRACTION, % WT. VISCOSITY @ 122°F, S.F.S. POUR POINT, °F SULFUR, % WT. ASTM D-4294 ASTM D-482 0.097	TEST	METHOD	RESULT
CARBON RES., CONRADSON, 7. WT. NITROGEN, 7. WT. ASTM D-189 ASTM D-3228 O.24 ASPHALTENES, 7. WT. TRACE METALS A.A.S. ALUMINUM, ppm Frace Sodium, ppm Sodium	FLASH POINT, PMCC, °F WATER BY DISTILLATION, 7. VOL. SEDIMENT BY EXTRACTION, 7. WT. VISCOSITY @ 122°F, S.F.S. POUR POINT, °F SULFUR, 7. WT. ASH, 7. WT. CARBON RES., CONRADSON, 7. WT. NITROGEN, 7. WT. ASPHALTENES, 7. WT.	ASTM D-93 ASTM D-95 ASTM D-473 ASTM D-445 ASTM D-97 ASTM D-4294 ASTM D-482 ASTM D-189 ASTM D-3228 IP-143 A.A.S. ALUMINUM, SILICON, SODIUM,	180 0.60 0.10 81.1 20 0.98 0.097 10.93 0.24 2.04 ppm 105 ppm 73 ppm 51

SGS CONTROL SERVICES INC.

Rick Moore Lab Manager

RM/11

TO AODRESS WATER THAT THE PROPERTY OF THE PROP	Justice C	ate of the issue of	this bi	11 01 1	VAYMENT A	 5.	ONECCO	ע פאג	NOUNT OH	**************
UNOCAL	76)			-			REFER YO	OUR PAY	MENT TO	
	CODE	CUSTOMER NUMBER	DIST.	TYPE	01, 02, 03 F.O.B.					TRUCK NO.
DEBOX 91946 CHICAGO IL 60693	02	01279694	00	02	OF - F.O.B. SHIPPING POINT	11	6313	04/0	5/88	
	SHIPPE	D FROM	1			SHIPPIN	IG POINT NUM	BER	COLL/PPD	DISTRIBUTION CODE
OMMON CARRIER	TAM	PA FL					9090		PPD	017
ALCOMA PACKING OF THE							_			

PO BOX 231 LAKE WALES FL

33853

SAME AS "SOLD TO" UNLESS NOTED

NCH	UNION ORDER NO.	ORDER DATE		CUS	OMER ORDER NO.		CONTRACT NO.	ITEM NO.
218 NOH	UNION ORDER NO. T-7918			7	-7982			
OUAN ROSS GALS, OR	NET GALS, OR	NO, OF	TICKET NO. PRODUCT CODE	D	SHIPPED QUANTITY	PRICE,	PRODUCT DESCRIPTION	THUOMA
O. OF PACKAGE			CL DETAIL	Ē	3111120 40211111	- Dk		
	6444		116313 05906 09952022608		6444 6444	.3654 .00047	#6 LS RESIDUAL FUEL FLA POLLUTION TAX	2354.64
						·	#253/	
						7870-60	1178.84	
RECEI	VED APR 1	1983				7870-50	1178.84	
,`								
_6.328810 Erus nodisi	<u>2-17218-5402</u> COUNT ON CONTAINERS FREE	GHT OR TAXES	L DATE BILL	ED	4/11/88	DEDUCT DISCOUNT	 	
ET 30 DA	YS - DUE	05/1	04/88		1	}	INVOICE TOTAL ()	2357.67

STATE OF VIRGINIA LIABILITY FOR VIRGINIA MOTOR FUEL TAX ON GASOLINE ASSUMED BY UNION OIL COMPANY OF CAUFORNIA

THIS IS TO CERTIFY THAT UNION OIL COMPANY OF CALIFORNIA HAS UNDERTAKEN TO COMPLY FULLY WITH THE PROVISIONS OF THE FAIR LABOR STANDARDS ACT OF THE UNITED STATES AS TO ALL GOODS LISTED ON THIS INVOICE.

ORIGINAL

40-10-1-24-97 (REV. 11-85) PRINTED IN U.S.A.

											CO GIO		
1			· · · · · · · · · · · · · · · · · · ·					PAYMENT A	DVICE.	MOER DATE	٨١٠٥, ٨٨	NO THUO	YO
The Paris of the P	والمراجعة المراجعة		OCAL	-				•		EFER YO	(IID PAV4	MENT TO	,
	77.5	ZUN	OCAL		í.					NVOICE			ĺ
				CODE	CUSTOMER NUMBER	DIST.	TYPE 01.02.0	STINATION	7	NUMBERS		200	TRUCK NO.
3 PO BOX 91946	CHICAG	0 IL 61	0693	02	01279694	00	02 or - E	D B .	11	6303	04/	04/88)
	STATE STATE			SHIPPE	D FROM	•	·		SHIPPING	BAUN TRION	ER	COLL/PPO	DISTRIBUTION CO
COMMONICARRIE	R	· ·		TA	MPA FL					909)	PPD	017
ALCOMA PAC	יאדאה רו	ו דאר											
離去 だいだい というりつ		3, 1110) H		C A 145	A C 11	دڪيا	` TO'	' 3 (N)(ree i	NOTED
ਪੁੱ≒ ੇPO BOX 231 ਪਾ ਕਜ਼ਨLAKE WALES	ÉL	33	853		P τ		SAME	A5	20L	ָטו כ	OIM	.655	NOTED
O THE PARTY OF THE	• • •	-			°								
				. ,									
BRANCH UNION OR		ORDER DATE	*		OMER ORDER NO.			CONTRAC	T NO.				ITEM NO.
7218	918		·	<u> </u>	T-7982								
QUANTITY ORDER	ED GALS. OR	NO. OF	TICKET NO. PRODUCT CODE	ÞΩ	SHIPPED QUANTITY	p	RICE	P P	RODUĆI	DESCRIPTI	ОИ	ĺ	AMOL
NO. OF PACKAGES TYPE OF	FCONTAINÉR	SHIPPED	CL DETAIL	É		ļ							
£. }		į	116303		(-70)		, ,				}	
	6378	Į.	05946 0995202260	าส	6378 6378		.30			ESIDU. LUTIO		EL	1913
		ļ · ·							, , , , ,			1	·
		}			}			Į				}	
						}		}				1	
		}				ļ		į Į				ł	
-		1			Ì			1				i	
L .		}			{	Į		[.1		., {	
		}	}			}		}		9	194	10	
		}			ł	Ì		i		' <i>}</i>	174	//	
		1			ì	1		(61		√	
-		Ì	Į.			l		{			(/	
1			į		}	1_		Į			1		
,					}	UX)	60	95	-85	0	ί	′	
		}			'	70-	60 050			_		ł	
		}	i		}	181	050	1950	8.2	0		}	•
: REC	EIVED	APR 1	1 1988		1	ĺ		Ì				į	
			2 1988			}		{				Į.	
· · · · · · · · · · · · · · · · · · ·	-1 V L.U	1			}	}		}				ł	
7 432881198-721 TERMS NO DISCOUNT ON CO		CHT OF TAYES	DATE_BI	LLEI	4/07/88_	DEDLI	T DISCOUNT	 		· 		 -	
NET 30 DAYS -			03/88				010000171		1	NVOICE	ATOT	ı [Sl	1916
		SSASTAC		วลเนก	APALLETIDEPO	I SITETE	RMS ONID	L FVFRSF					
CONTRACTOR SECURITION OF THE SECURITIES OF THE SECURITION OF THE S		STATE OF VI		THE	S IS TO CERTIFY TH	AT UN	ION OIL CO	MPANY (OF CALL	FORNIA H			Company of the last of the las
	LIABILITY FOR V	TRGINIA MOTO	R FUEL TAX ON GASOLINE MANY OF CAUFORNIA		COMPLY FULLY WI UNITED STATES AS						NDARDS	ACT OF	
ORIGINAL	L—			1	2,60 4111120110						 -		_
					•								

FORM 3-2K 97 (REV. 11-85) PRINTED IN U.S.A.

10/19/01 Friday

1000 HP BOILER No. 2 (E.U. ID # 004)

EMISSION CALCULATIONS

General

The 1000 HP boiler got burnt out and need to be replaced with a similar boiler.

Parameters

Fuel

Natural Gas

Emergency standby fuel No. 4 fuel oil, 0.5% S

Operating hours

4000 hours

Maximum hours on oil 240 hours

Potential Emissions

The potential calculations are calculated based on the 4000 operating hours total broken down to 240 hours (10 days) on oil and 3760 hours on natural gas. Oil will be used only if the natural gas supply is interrupted.

Gas Emission Factors

BOILERS	Parameter	Emission Factor	Reference
	Particulates	7.6 #/mmcf	AP42-1.4-1
	Sulfur dioxide	0.6 #/mmcf	AP42-1.4-1
	Nitrogen Oxide	100 #/mmcf	AP42-1.4-1
	Carbon Monoxide	84 #/mmcf	AP42-1.4-1
	VOC	5.5 #/mmcf	AP42-1.4-1

Potential Emissions - Natural Gas

1000 HP Boiler @ 40,500 cfh and @ 3,760 hours/year = 152.3 mmcf

PM:

152.3 mmcf x 7.6 #/mmcf x tons/2000 = 0.58 tons

SO2:

152.3 mmcf x 0.6 #/mmcf x tons/2000 = 0.05 tons

NO:

152.3 mmcf x 100 #/mmcf x tons/2000 = 7.6 tons

CO:

152.3 mmcf x 84 #/mmcf x tons/2000 = 6.4 tons

VOC:

152.3 mmcf x 5.5 #/mmcf x tons/2000 0.42 tons

Facility: Citrosuco North America, Inc.

Permit: 1050001-004-AC Page 2 of 2

Oil Emission Factors

BOILERS	Parameter	Emission Factor	Reference
	Particulates	7 #/1000 gal	AP42 1.3-1
	S02	75 #/1000 gal	AP42 1.3-1
	NO	20 # /1000 gal	AP42 1.3-1
	CO	5 #/1000 gal	AP42 1.3-1
	VOC	0.25/1000 gal	AP42 1.3-1

Potential Emissions - No. 4 Oil with 0.5% S

1000 HP Boiler, 270 gallons per hour, @ 240 hours/year = 64,800 gallons of No. 4 Oil with 0.5 % S.

PM: 64,800 gals x 7 #/1,000 gals x tons/2,000 = 0.22t

SO2: $64,800 \text{ gals } \times 75 \#/1,000 \text{ gals } \times \text{tons/2,000} = 2.43t$

NOx $64,800 \text{ gals } \times 20 \text{ #/1,000 gals } \times \text{tons/2,000} = 0.65t$

CO $64,800 \text{ gals } \times 5 \#/1,000 \text{ gals } \times \text{tons/2,000} = 0.162t$

VOC 64,800n gals x 0.25 #/1,000 gals x tons/2,000 = 0.01t

Proposed Emission Summary

Parameters	Boilers TPY (4000 Hrs)
PM	0.8
SO2	2.5
NO	8.25
СО	6.6
VOC .	0.43