FACILITY PERMIT REVIEW SHEET

DATE: 2/21/2012 **APPLICATION NUMBER:** 0310142-009-AO

FACILITY NAME: Shands Jacksonville Medical Center

FACILITY DESCRIPTION: Hospital, steam generating boilers (three boilers at 18.0, 13.4, and 13.4 MMBtu/hr)

PERMIT PROCESSOR: C. Blane Johnson

MAJOR FOR CRITERIA POLLUTANTS AND/OR HAPs (Circle)

CO **PB** **NO_x** **PM** **SO_2** **VOC** **HAP**

SUBJECT TO: (Circle)

NSR(PSD) **PERMIT NUMBER:**

NSR(NAA) **PERMIT NUMBER:**

BACT **EU NUMBER:** 006, 007, 008

MACT **EU NUMBER:** 006, 007, 008

RACT **EU NUMBER:** 006, 007, 008

NSPS **EU NUMBER:** 006, 007, 008

PROJECT EMISSION SUMMARY

	POTENTIAL EMISSIONS	ALLOWABLE EMISSIONS	
	TPY	LBS/HR	TPY
PM	1.5		
PM10			
SO2	0.5		
NOX	19.2		
CO	16.2		
VOC	1.1		
TOC			
PB			
TOTAL HAP	0.4		
SINGLE HAP (highest)	0.35		

COMMENTS:

Effective 2/27/97

EMISSIONS CALCULATIONS

APPLICATION NUMBER: 0310142-009-AO **EU NUMBER:** 006, 007, 008 (NG)

REFERENCES: AP-42, Section 1.4; 0310142-009-AO application

POLLUTANT: Nitrogen Oxides (NO_x)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBtu/hr) / fuel heating value (MMBtu/million ft^3) x emission factor (lb/million ft3) x (hr/yr) = PTE

44.8	1020	100	8760	=	38475	lb/yr
				=	19.2	ton/yr

RULE APPLICABILITY: **FEDERAL** **STATE** **LOCAL**

COMMENTS:

POLLUTANT: Carbon Monoxide (CO)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBtu/hr) / fuel heating value (MMBtu/million ft^3) x emission factor (lb/million ft3) x (hr/yr) = PTE

44.8	1020	84	8760	=	32319	lb/yr
				=	16.2	ton/yr

RULE APPLICABILITY: **FEDERAL** **STATE** **LOCAL**

COMMENTS:

POLLUTANT: Particulate Matter (PM)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER
		20		

POTENTIAL EMISSION CALCULATIONS

heat input (MMBtu/hr) / fuel heating value (MMBtu/million ft^3) x emission factor (lb/million ft3) x (hr/yr) = PTE

44.8	1020	7.6	8760	=	2924	lb/yr
				=	1.5	ton/yr

RULE APPLICABILITY:	FEDERAL	STATE	LOCAL
		62-296.406	2.1101

COMMENTS: Emission factor is combined "Filterable PM" (=2) and "Condensable PM" (=1.3).

POLLUTANT: Sulfur Dioxide (SO_2)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBtu/hr) / fuel heating value (MMBtu/million ft^3) x emission factor (lb/million ft3) x (hr/yr) = PTE

44.8	1020	0.6	8760	=	230.9	lb/yr
				=	0.12	ton/yr

RULE APPLICABILITY:	FEDERAL	STATE	LOCAL
		62-296.406	2.1101

COMMENTS:

POLLUTANT: Hazardous Air Pollutants (HAPs)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBtu/hr) / fuel heating value (MMBtu/million ft^3) x emission factor (lb/million ft3) x (hr/yr) = PTE

44.8	1020	1.89	8760	=	727	lb/yr
				=	0.4	ton/yr

RULE APPLICABILITY: **FEDERAL** **STATE** **LOCAL**

COMMENTS: Highest HAP, Hexane (1.8 lb/million ft^3) = 693 lb/yr.

POLLUTANT: Volatile Organic Compounds (VOCs)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBtu/hr) / fuel heating value (MMBtu/million ft^3) x emission factor (lb/million ft3) x (hr/yr) = PTE

44.8	1020	5.5	8760	=	2116	lb/yr
				=	1.1	ton/yr

RULE APPLICABILITY: **FEDERAL** **STATE** **LOCAL**

COMMENTS:

PERMIT PROCESSOR: **DATE:**

Effective 2/27/97

EMISSIONS CALCULATIONS

APPLICATION NUMBER: 0310142-009-AO **EU NUMBER:** 006, 007, 008 (#2 F.O.)

REFERENCES: AP-42, Section 1.3; 0310142-009-AO application

POLLUTANT: Nitrogen Oxides (NO_x)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBtu/hr) / fuel heating value (MMBtu/1000 gal) x emission factor (lb/1000 gal) x (hr/yr) = PTE

44.8	140	20	400	=	2560	lb/yr
				=	1.3	ton/yr

RULE APPLICABILITY: **FEDERAL** **STATE** **LOCAL**

COMMENTS:

POLLUTANT: Carbon Monoxide (CO)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBtu/hr) / fuel heating value (MMBtu/1000 gal) x emission factor (lb/1000 gal) x (hr/yr) = PTE

44.8	140	5	400	=	640	lb/yr
				=	0.3	ton/yr

RULE APPLICABILITY: **FEDERAL** **STATE** **LOCAL**

COMMENTS:

POLLUTANT: Particulate Matter (PM)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER
		20		

POTENTIAL EMISSION CALCULATIONS

heat input (MMBtu/hr) / fuel heating value (MMBtu/1000 gal) x emission factor (lb/1000 gal) x (hr/yr) = PTE

44.8	140	3.3	400	=	422	lb/yr
				=	0.2	ton/yr

RULE APPLICABILITY:	FEDERAL	STATE	LOCAL
		62-296.406	2.1101

COMMENTS: Emission factor is combined "Filterable PM" (=2) and "Condensable PM" (=1.3).

POLLUTANT: Sulfur Dioxide (SO_2)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBtu/hr) / fuel heating value (MMBtu/1000 gal) x emission factor (lb/1000 gal) x % sulfur content of fuel x (hr/yr) = PTE

44.8	140	142	0.05	400	=	909	lb/yr
					=	0.5	ton/yr

RULE APPLICABILITY:	FEDERAL	STATE	LOCAL
		62-296.406	2.1101

COMMENTS: Maximum fuel oil sulfur content limited to 0.05% by weight.

POLLUTANT: Hazardous Air Pollutants (HAPs)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBtu/hr) / fuel heating value (MMBtu/1000 gal) x emission factor (lb/1000 gal) x (hr/yr) = PTE

44.8	140	7.88E-02	400	=	10.1 lb/yr
				=	0.01 ton/yr

RULE APPLICABILITY: **FEDERAL** **STATE** **LOCAL**

COMMENTS: Highest HAP, Formaldehyde (6.10E-2 lb/1000 gal) = 7.8 lb/yr.

PERMIT PROCESSOR: _____ **DATE:** _____

Effective 2/27/97