FACILITY PERMIT REVIEW SHEET

DATE: 11/20/2012 **APPLICATION NUMBER:** 0310572-003-AC

FACILITY NAME: SAFT America Inc.

FACILITY DESCRIPTION: Lithium Ion Battery Manufacturing Facility

PERMIT PROCESSOR: C. Blane Johnson

MAJOR FOR CRITERIA POLLUTANTS AND/OR HAP's (Circle)

PM SO_2 NO_X CO PB O_3 HAP

SUBJECT TO: (Circle)

NSR(PSD) PERMIT NUMBER: _____

NSR(NAA) PERMIT NUMBER: _____

BACT EU NUMBER: _____

MACT EU NUMBER: _____

RACT EU NUMBER: _____

NSPS EU NUMBER: _____

FACILITY EMISSION SUMMARY

	POTENTIAL EMISSIONS	ALLOWABLE EMISSIONS	
	TPY	LBS/HR	TPY
PM	0.70	5	15
SO_2	0.06		
NO_X	8.72		
CO	3.71		
CO_2	11,126		
O_3	3.86		
PB	4.64E-05		
VOC	2.40		10
TOTAL HAP	0.175		
SINGLE HAP (highest)	0.166		

COMMENTS: _____

Effective 2/27/97

EMISSIONS CALCULATIONS

APPLICATION NUMBER: 0310572-003-AC **EU NUMBER:** 001

REFERENCES: 0310572-003-AC application

POLLUTANT: Volatile Organic Compounds (VOC)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER
	10			

POTENTIAL UNCONTROLLED EMISSION CALCULATION

ppmv (cm3/m3) X NMP molecular weight (g/mol) / temperature (K°) X ideal gas constant (mol-K°/L-atm) X condenser exhaust rate (ft3/min) X (m3/ft3) X (lb/g) X (L/cm3) X (min/hr) = PTE for each condenser

200	99.130	283.150	12.187	1133	0.0283	0.002	0.001	60

= 3.62 lb/hr
= 15.86 tpy

Total PTE for all three (3) condensers = 47.59 tpy

POTENTIAL EMISSION CALCULATION

ppmv (cm3/m3) X NMP molecular weight (g/mol) / temperature (K°) X ideal gas constant (mol-K°/L-atm) X scrubber exhaust rate (ft3/min) X (m3/ft3) X (lb/g) X (L/cm3) X (min/hr) = PTE

10	99.130	283.150	12.187	2703	0.0283	0.002	0.001	60

= 0.43 lb/hr
= 1.89 tpy

RULE APPLICABILITY:	FEDERAL	STATE	LOCAL
		62-4.070(3)	2.1401

COMMENTS: Potential uncontrolled emissions are based on expected condenser outlet conditions and potential emissions are based on expected wet scrubber outlet conditions.

PERMIT PROCESSOR: _____ **DATE:** _____

Effective 2/27/97

EMISSIONS CALCULATIONS

APPLICATION NUMBER: 0310572-003-AC **EU NUMBER:** 002

REFERENCES: 0310572-003-AC application and AP-42 Section 1.4

Calculations based on three (3) drying ovens at 7.2 MMBTU per hour per oven (21.6 MMBTU total).

POLLUTANT: Particulate Matter

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER
5	15	20		

POTENTIAL EMISSION CALCULATIONS

heat input (MMBTU/hr) X AP-42 EF (lb/MMBTU) = PTE

21.6	7.45E-03	=	0.16	lb/hr
		=	0.70	tpy

RULE APPLICABILITY:	FEDERAL	STATE	LOCAL
		62-296.700(2)(a)	2.1101
		62.296.320(4)(b)1	2.1101

COMMENTS:

POLLUTANT: Particulate Matter less than or equal to 10 micrometers (PM_{10})

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER
5	15	20		

POTENTIAL EMISSION CALCULATIONS

heat input (MMBTU/hr) X AP-42 EF (lb/MMBTU) = PTE

21.6	7.45E-03	=	0.16	lb/hr
		=	0.70	tpy

RULE APPLICABILITY:	FEDERAL	STATE	LOCAL
		62-296.700(2)(a)	2.1101
		62.296.320(4)(b)1	2.1101

COMMENTS:

POLLUTANT: Sulfur Dioxide (SO_2)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBTU/hr) X AP-42 EF (lb/MMBTU) = PTE

21.6	5.88E-04	=	0.01	lb/hr
		=	0.06	tpy

RULE APPLICABILITY:	FEDERAL	STATE	LOCAL

COMMENTS:

POLLUTANT: Nitrogen Oxides (NO_X)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBTU/hr) X AP-42 EF (lb/MMBTU) = PTE

21.6	9.22E-02	=	1.99	lb/hr
		=	8.72	tpy

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) X AP-42 EF (lb/MMBTU) = PTE

21.6	3.92E-02	=	0.85	lb/hr
		=	3.71	tpy

RULE APPLICABILITY:

FEDERAL	STATE	LOCAL

COMMENTS:

POLLUTANT: Carbon Dioxide (CO_2)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBTU/hr) X AP-42 EF (lb/MMBTU) = PTE

21.6	1.18E+02	=	2,540	lb/hr
		=	11,126	tpy

RULE APPLICABILITY:

FEDERAL	STATE	LOCAL

COMMENTS:

POLLUTANT: Lead (Pb)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBTU/hr) X AP-42 EF (lb/MMBTU) = PTE

21.6	4.90E-07	=	1.06E-05	lb/hr
		=	4.64E-05	tpy

RULE APPLICABILITY:

FEDERAL	STATE	LOCAL

COMMENTS:

POLLUTANT: Volatile Organic Compounds (VOC)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBTU/hr) X AP-42 EF (lb/MMBTU) = PTE

21.6	5.39E-03	=	0.12	lb/hr
		=	0.51	tpy

RULE APPLICABILITY:

FEDERAL	STATE	LOCAL

COMMENTS:

POLLUTANT: Hazardous Air Pollutants (HAP)

ALLOWABLE EMISSIONS

LBS/HR	TPY	% OPACITY	CONCENTRATION	OTHER

POTENTIAL EMISSION CALCULATIONS

heat input (MMBTU/hr) X AP-42 EF (lb/MMBTU) = PTE

21.6	1.85E-03	=	0.040	lb/hr
			0.175	tpy

RULE APPLICABILITY:	FEDERAL	STATE	LOCAL

COMMENTS: Higest HAP is Hexane at 1.76E-3 lb/MMBTU (0.038 lb/hr, 0.166 tons/yr).

PERMIT PROCESSOR: _____ **DATE:** _____

Effective 2/27/97