TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Med Safe Solutions.US, Inc.
5959 Winkler Road
Fort Myers, Florida 33919

Relocatable "OSWI" Incinerators
Facility ID No. 7775707

PROJECT

Project No. 7775707-001-AC
Application for Minor Source Air Construction Permit
Relocatable "OSWI" Incinerators (EU-001 and EU-002)

COUNTY

Lee, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Section
South District Office
2295 Victoria Avenue, Ste. 364
Fort Myers, Florida 33902-2549

December 16, 2011

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

Facility Description and Location

Med Safe Solutions.US, Inc. proposes to transport and operate two (2) portable, (very small) "OSWI" (Other Solid Waste Incinerator) units, manufactured by Elastec, Inc./American Marine, Inc., to separate locations and perform the operation of incineration for disposal of drugs, narcotics and medications on site. The source is categorized under Standard Industrial Classification Code No. 4953. The facility headquarters is located in Lee County at 5959 Winkler Road in Fort Myers, Florida. The UTM coordinates of the facility headquarters are Zone 17, 26/33/42 North and 81/53/53 West. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V source of air pollution in accordance with Chapter 213, F.A.C. A Title V permit is required as the U.S. EPA, New Source Performance Standards (NSPS) rule 40 CFR 60 Subpart EEEE for "OSWI" units is determined to be applicable.
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

Transport two (2) portable (very small) "OSWI" (Other Solid Waste Incinerator) units, manufactured by Elastec, Inc./American Marine, Inc., to separate locations and perform the operation of incineration for disposal of drugs, narcotics and medications on site. The incinerators are "smoke free". One (1) incinerator (EU No. 001) is a drum, 37"Lx30"Wx54"H with 2 blowers, is fired by wood or charcoal, and has an average burn rate of 50 lbs/hr. One (1) incinerator (EU No. 002) is a "MEDIBURN 20 and is fired by diesel fuel oil. It has a primary chamber volume of 10.5 cu. ft. and provides an average burn rate of approximately 55 lbs/hr. Time of operation at each location will vary, and can be as short as 20 minutes or less, or may be somewhat longer depending upon the demand. Typical locations are law enforcement offices, medical offices and hospitals. This does NOT include other medical waste

or classifications defined as hazardous materials. The emissions of each unit are primarily insignificant due to high efficiency of combustion with induced draft blowers and specialized design of the equipment. The volume of incinerated material is reduced to an average of 1% ash.

Processing Schedule

December 7, 2011, Received the application for a minor source air pollution construction permit.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides (NO_X); sulfur dioxide (SO_2); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM_{10}); volatile organic compounds (VOC); lead (Pb); fluorides (Fl); sulfuric acid mist (SAM); hydrogen sulfide (H_2S); total reduced sulfur (TRS), including H_2S; reduced sulfur compounds, including H_2S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO_2 and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 $\mu g/m^3$, 24-hour average.

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

PSD Applicability for Project

The equipment is Manufactured by Elastec Inc./American Marine, Inc. 1309 West Main, Carmi, IL 62821. (EU-001) ELASTEC "Drug Terminator": This is a "Relocatable" very small "OSWI" Incinerator Drum unit that is 37"L x 30"W x54" H. Exit temperatures at 1,100 degrees F. with a stack height of 3.83 Feet. And (EU-002) is an ELASTEC – "MediBurn20", Primary chamber 10.5 cu. ft. Incinerator (Small, Portable "OSWI"). The unit is a "Batch Type" very small municipal waste combustion unit. 34" W x 62" L x 82" H. Direct flame afterburner and secondary combustion chamber with exit temperatures at appx. 1,832 degrees F. with a stack height of 8.3 feet.

As provided in the application, the following table summarizes potential emissions and PSD applicability for the project.

Table A. Potential Emissions (Tons/Year) and PSD Applicability

Pollutant	Project Potential Emissions (TPY)	Significant Emissions Rate (TPY)	Subject To PSD?
CO	0	100	No
NO_X	0.154	40	No
PM/PM_{10}	0.055	25/15	No
SO_2	0	40	No
VOC	0.0025	40	No

As shown in the above table, total project emissions will not exceed the PSD significant emissions rates; therefore, the project is not subject to PSD preconstruction review.

3. APPLICATION REVIEW

Discussion of Emissions

Emissions are insignificant for both EU-001 and EU-002.

EU-001

a) The Particulate Matter (PM) is approximately 0.01 tons/year,
b) NOx emissions is approximately 0.088 ton/year.
c) VOC emissions are approximately 0.0015 ton/year.
d) Visible Emissions: 10 percent, 6-minute average (observe over three 1-hour test runs; i.e., thirty 6-minutes average).

EU-002

a) The Particulate Matter (PM) is approximately 0.01 tons/year,
b) NOx emissions is approximately 0.066 ton/year.
c) VOC emissions are approximately 0.001 ton/year.
d) Visible Emissions: 10 percent, 6-minute average (observe over three 1-hour test runs; i.e., thirty 6-minutes average).

Federal NSPS Provisions

- The facility is a Title V source per 40 CFR 60 Subpart EEEE – U.S. EPA New Source Performance Standards (NSPS) for Other Solid Waste Incineration ("OSWI") units which Construction is Commenced After June 16, 2004 (40 CFR 60.2880-60.2977). (A Title V permit would not be required for emission sources this small, however the U.S. EPA, New Source Performance Standards (NSPS) rule 40 CFR 60 Subpart EEEE for "OSWI" incinerators is determined by the U.S. EPA to be applicable.)

Other Draft Permit Requirements

a) Restricted Operation: No hazardous waste shall be burned. The hours of operation limited (1,560 hours per year). [Rules 62-4.070(3) and 210.200(PTE), F.A.C.]

b) Facility Relocation: The facility (Emission Unit EU-002) can be relocated to separate locations and operate as the incineration system for disposal of drugs, narcotics and medications on various sites in an approved county where public notice has been published without objections. See Facility Relocation in General Conditions, Appendix B.

c) Attended Operation: The incinerator unit (EU-002) shall be attended at all times while materials are being burned or flames are visible within the incinerator.

d) Operator Training: All equipment operators shall be trained to operate the equipment in accordance with manufacturer's specifications. Operators shall be trained in basic environmental compliance, are to perform visual inspections of all materials before handling. Operators are to use caution when handling ash and other dusty materials to minimize unconfined emissions of particulate matter (PM) during handling and disposal. Spilled ash and other materials are to be "immediately" collected to minimize fugitive emissions.

e) Initial Compliance Tests: Initial testing will be required as per the testing requirements contained in Subpart EEEE.

f) Annual Compliance Tests: Is required per Subpart EEEE.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. Carter B. Endsley, P.E. is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the offices of Air Resource Management, South District, 2295 Victoria Avenue, Fort Myers, Florida, 33902-2549.