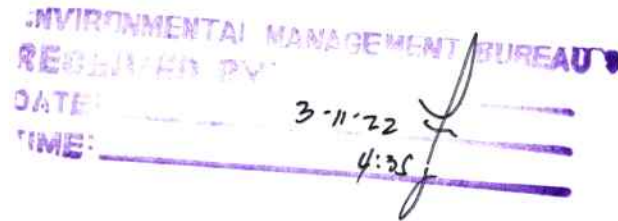




TACLOBAN OIL MILLS, INC.



March 11, 2022

REYNALDO B. BARRA, PME
EMB Regional Director
Region 8 Jones Ext., DENR Compound,
Tacloban City

Tel. No. (053) 832-1088

Sir:

We hereby submit the Source-Specific Test Plan for one (1) unit 300Hp "Kewanee" Diesel-fired Boiler and two (2) unit's 450kW "Cummins" Generator Set in their facility in Brgy. Opong, Tolosa, Leyte. The emission testing will be conducted by a third party, **Pure Jjem Environmental Corporation**. Three (3) test runs shall be performed on the Boiler to collect Particulate Matter (PM), Sulfur Oxide (SO_x), Nitrogen Oxide (NO_x), and Carbon Monoxide (CO) while on the Generator Sets to collect Nitrogen Oxide (NO_x), and Carbon Monoxide (CO).

The results of the testing shall be used as supporting documents for our annual emission testing for the said sources. The test is scheduled for March 29, 2022.

We hope the attached test plan merits your approval and the test results be acceptable for the said purpose.

Sincerely,

TACLOBAN OIL MILLS

for: 
KENNETH D. SI
PLANT MANAGER



Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
Visayas Avenue, Diliman, Quezon City



SAT No. 2020-90

CERTIFICATE OF ACCREDITATION

Pursuant to DENR Administrative Order No. 26 Series of 2013 of the Department of Environment and Natural Resources having substantially met all the requirements prescribed therein,

PUREJJEM ENVIRONMENTAL CORPORATION

#10 Quezon Road, San Isidro,
San Simon, Pampanga

is hereby duly accredited as

SOURCE EMISSION TESTING FIRM

As such, the following are authorized as:

QA/QC Manager

Mark Vincent D. Lau

Team Leader

John Carlo L. Jacinto

This certification shall allow the above firm and personnel to conduct stack testing limited to the following methods and parameters:

1. US-EPA Method 1 to 5 - PM
2. US-EPA Method 6/8 - SO₂
3. US-EPA Method 7 - NO_x
4. US-EPA Method 10 - CO

Granted this 17th day of September 2020, and valid until September 17, 2023.


ENGR. WILLIAM P. CUÑADO
OIC-Director





Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
ENVIRONMENTAL MANAGEMENT BUREAU

Regional Office No. 8
DENR Compound, Jones St., Tacloban City
Tel. # 053-832-1088

SEP 05 2017
12:10pm

Permit No. 17-POA-H-0837-0339

Date Issued

August 9, 2017

Valid Until

August 9, 2022

**PERMIT TO OPERATE
AIR POLLUTION INSTALLATIONS**

(Renewal)

Pursuant to Rule XIX of the Implementing Rules and Regulation of Presidential Decree 8749 otherwise as The Philippine Clean Air Act, authority is hereby granted to:

TACLOBAN OIL MILLS

(Name of firm, individual, owner, etc.)

Brav. Opong, Tolosa Leyte

(Plant Address)

to operate the following: (Description of structure and/or equipment)

One (1) unit 300 HP KEWANNE Boiler, with one (1) unit compact type multi-cyclone dust collector; Eighteen (18) units Anderson Super Duo expellers at twenty five tons each; Hammer mills; One (1) unit 1000 KW generator set; Two (2) units 450 KW all "CUMMINS" brand with mufflers.

Permit Conditions:

1. To automatic revocation if found violating the Implementing Rules and Regulations of RA 8749 and the conditions set forth in this Permit;
2. This Operating Permit covers only the aforementioned structure/equipment;
3. This Permit shall be posted conspicuously near the equipment adequately framed and protected against damage;
4. Application for the renewal of this Permit shall be filed at least thirty (30) days before the expiry date;
5. The Manager or Pollution Control Officer in charge of the above installation(s) shall keep record of the fuel and oil consumption and no. of hours of operation, to be included in the quarterly report for submission to this office.
6. The permittee shall allow authorized officers of the Department or the Bureau entry and access to any part of the establishment, to conduct inspections, gather information, test emissions or take samples at all times during office hours. The permittee and its personnel shall not obstruct such officers in the performance of the said functions, and shall furnish any reasonable information or materials requested by them. The permittee shall also obey any lawful instruction or direction given by the authorized or accredited officer of the Department or the Bureau at all times.
7. The permittee shall maintain adequate records/logbook of monitoring, operational data of APSE and APCD, operating hours of the APSE and APCD and other relevant information for perusal and verification during inspection. They shall also submit reports of such records/information to DENR quarterly as part of the SMR.
8. The permittee shall submit third party emission test result for 300 HP KEWANNE Boiler, as required under DENR EMB MC No. 2007-003. To submit immediately the result to EMB, Regional Office.



SOURCE-SPECIFIC TEST PLAN

Reference No. PJEC-SET-22-185

Section A: Introduction

Pure Jjem Environmental Corporation was contracted by Tacloban Oil Mills to conduct source emission testing on one (1) unit of Boiler, and two (2) unit's Generator Set in their facility located at Brgy. Opong, Tolosa, Leyte. Emission testing consisting of three runs for Particulate Matter (PM), Sulfur Oxides (SO_x), Nitrogen Oxides (NO_x), and Carbon Monoxide (CO) shall be performed on the Boiler. Nitrogen Oxides (NO_x), and Carbon Monoxide for Generator Set.

The purpose of the testing was to measure stack emission concentrations in comparison to the emission limits defined in the CAA and Implementing Rules and Regulations (IRR). This test plan is prepared for review and approval by the DENR-Region 8 so that the emission test results will be used for their renewal of a permit to operate for the said sources.

Section B: Facility Information

TACLOBAN OIL MILLS

Brgy. Opong, Tolosa, Leyte

Contact Person: **MS. GLORIA ADVINCULA**
Pollution Control Officer
Contact No.: 0932 871 3557

Section C: Production Information and Facility Requirements

The Plant should operate the equipment at 90 % or greater of permitted capacity during testing. If this operating capacity is not met, note that the Implementing Rules and Regulations of the Philippine Clean Air Act specifies that the operating capacity during emission testing shall be the basis for setting the maximum allowable operating capacity during permit application.

The facility must provide the following items:

1. One (1) test port and safe access – platform and ladder with cage. The test port should be cleaned before testing.
2. Electrical Power – Two (2) convenient separate circuits with grounding at the stack.
3. Hourly Operating Log Sheet of the equipment, i.e.: steam generate per hour and hourly fuel consumption (copy of pages after the test).
4. Copy of Permit to Operate.
5. In case the above data are not available, a copy of the production data of processes should be included (copy of the page after the test).
6. Analysis of fuel being used during testing (copy of pages after the test)

Representative/s from DENR may be on-site during testing to observe the conduct of the test.



Section D: Source Information

Tacloban Oil Mills maintains and operates one (1) unit 300Hp “Kewanee” Diesel-fired Boiler and two (2) unit 450kW “Cummins” Generator Set in their facility in Brgy. Opong, Tolosa, Leyte. Both sources are using Diesel as their Fuel. There is no pollution control device associated.

The sampling methodologies and duration are specified in Table 1 and Table 2.

TABLE 1 – TEST METHODOLOGY

Source: One (1) unit 300Hp Diesel-fired Boiler
Brand: Kewanee
Fuel: Diesel
APCD: N/A

Parameter	Abbr.	Test Method	Test No./ Duration	Notes
Volumetric Flow Rate	VFR	EPA Methods 1 through 4	Three 1-hour test runs	Performed concurrently with PM test
Particulate Matter	PM	EPA Method 5	Three 1-hour test runs	up
Sulfur Oxides	SO _x	EPA Method 6	Three 1-hour test runs	Simultaneously with Method 5
Nitrogen Oxides	NO _x	EPA Method 7	Three 30-minute test runs, three grab samples per run	Total of nine samples per source shall be collected
Oxygen	O ₂	EPA Method 3 by Fyrite Analyzer	Three 1-hour test runs	Integrated tedlar bag sample during each M5 test
Carbon Dioxide	CO ₂	EPA Method 3 by Fyrite Analyzer	Three 1-hour test runs	Integrated tedlar bag sample during each M5 test
Carbon Monoxide	CO	EPA Method 10 by NDIR	Three 30-minute test runs	Integrated tedlar bag sample during each test run



TABLE 2 – TEST METHODOLOGY

Source: Two (2) unit's 450kW Generator Set
Brand: Cummins
Fuel: Diesel
APCD: None

Parameter	Abbr.	Test Method	Test No./ Duration	Notes
Nitrogen Oxides	NO _x	EPA Method 7	Three 30-minute test runs, three grab samples per run	Total of nine samples shall be collected
Oxygen	O ₂	EPA Method 3 by Fyrite Anayourr	Three readings per run	Integrated tedlar bag sample during each M5 test
Carbon Dioxide	CO ₂	EPA Method 3 by Fyrite Analyzer	Three readings per run	Integrated tedlar bag sample during each M5 test
Carbon Monoxide	CO	EPA Method 10 by NDIR	Three 30-minute test runs	Integrated tedlar bag sample during each test run

The plant should operate the boiler continuously during testing. In case the stack test ports did not comply with Method 1, or the operations are intermittent, only gaseous pollutants will be tested such as SO_x, NO_x, and CO including analysis of CO₂ and O₂. For gaseous testing, the sampling shall be performed for about 30 minutes.

Weighing of the PM filters shall be conducted by a sub-contract laboratory. SO_x samples shall be freshly prepared on-site during the sampling. Recovery of the PM and SO_x samples shall be performed at the site. Preparation of NO_x absorbing solution shall be conducted by a sub-contract laboratory. NO_x samples shall be recovered at the Pure Jjem Warehouse after 16 hours from the time the samples were collected. Three NO_x samples will be collected during each test run where a sample may be discarded when found to be an outlier from the others. CO samples shall be collected in a Tedlar Bag.

Analysis of PM, SO_x, NO_x, and CO shall be conducted by a sub-contracted laboratory – Echem Environmental Testing Laboratory. All samples shall be turned over to the laboratories for analysis with the corresponding Chain of Custody.



Section E: Quality Assurance / Quality Control Procedures

Normal QA/QC procedures described in USEPA Methods 1 through 6, 7, and 10 will be followed. The quality of sampling will be assured by:

- ensuring that the test port is located sufficiently distant from both upstream and downstream flow disturbances (such as bends and changes in stack diameter
- ensuring that stack gas flow is essentially parallel to the stack walls by conducting a cyclonic flow check;
- determination of a representative stack gas velocity by the selection of sampling test points appropriate to the stack diameter by the Method;
- leak testing of the sampling train before and after each sampling run;
- testing and calibration of the dry gas meter, thermocouples and temperature displays, pitot tubes, nozzles, and manometer assembly;
- ensuring that the temperature of the impinger system is maintained below 20°C.
- maintaining the filter and sampling probe temperature at 120 ± 14 °C.
- collection of an integrated tedlar bag sample for determination of oxygen, carbon dioxide, and carbon monoxide;
- collection and analyses of representative "blank" samples of reagents used in the emission tests;
- sampling rate should be between 90 – 110 % of the actual gas stream velocity (isokinetic sampling).
- use of freshly-prepared chemical solutions;
- proper recovery of the sample;
- accurate analyses (using spectrophotometry) of samples;
- calibration of the spectrophotometer and verification of linearity; and
- calibration and QA/QC checks of the sampling system;



Section F: Test Date

Date	Source	Test Activities	Notes
March 29, 2022 (Tuesday)	One (1) unit 300Hp Diesel-fired Boiler and Two (2) unit's 450kW Generator Set	3 runs per source	----
March 30, 2022 (Wednesday)	Contingency and Post Test Activities		

The test dates may be interchanged depending on the plant operation schedule. The actual run dates and times may vary based on the facility process conditions, weather, and testing logistics. The Test Team Leader will coordinate the specific run plans with the designated facility representative.

Prepared by:

PURE JJEM ENVIRONMENTAL CORP.

MARK VINCENT D. LAU
QA/QC Manager

Conformed by:

TACLOBAN OIL MILLS

MS. GLORIA ADVINCULA
Pollution Control Officer