



Republic of the Philippines  
Department of Environment and Natural Resources  
**ENVIRONMENTAL MANAGEMENT BUREAU**  
Regional Office No. VIII  
DENR 8 Compound, Brgy. 2, Jones Extension, Tacloban City  
Telefax: (053) 832-1088  
Email: [r8support@emb.gov.ph](mailto:r8support@emb.gov.ph) [emb8\\_emb8@yahoo.com](mailto:emb8_emb8@yahoo.com)  
Website: [r8.emb.gov.ph](http://r8.emb.gov.ph)



April 11, 2022

**MR. TEODULFO M. TROYO**

Managing Head

Green Core Geothermal Inc -Tongonan Geothermal Power Plant  
Lim-ao, Kananga Leyte

ENVIRONMENTAL MANAGEMENT BUREAU  
RELEASED BY:   
DATE: 4/19/2022  
TIME: 9:04am

**Subject: Approval of Source Emission Test (SET) Plan**

Sir:

This refers to your letter received by this Office on 07 April 2022 requesting for the approval of the SET plan for your **One (1) unit 1500 KW Caterpillar Diesel Engine Generator Set for CO and NO<sub>x</sub>** to be tested by **Berksman Systems Inc. (BSI)**. Please be informed that same is approved with a directive to comply with the facilities requirements and sampling methodology as stated in the test plan and strictly observe the fuel used as indicated in its "Permit to Operate" APSI's. Change of fuel during testing is not allowed; results will be invalid.

Further, the Pollution Control Officer shall observe/check the conduct of the test and ensure that the following sampling requirements are strictly followed by the DENR accredited third party sampler throughout the test:

- a. Equipment/apparatus available e.g., pumps, flasks, stop-cocks and impingers are clean, operational, functional and properly maintained;
- b. Chemicals used are not expired;
- c. Time of sampling must be strictly observed; and,
- d. No laptop or similar gadgets should be used during the sampling period
- e. The accredited QA/QC and the Team Leader, as the authorized personnel, should be at the facility during the conduct of actual sampling.

This office will send technical personnel to witness to conduct of test and observe the conditions of the facilities to be tested, which is scheduled on **April 18 to 22, 2022**.

Please be reminded that the SET Report shall be submitted within thirty (30) days from the date of testing to include the operating condition of the source at the time of sampling (e.g., fuel consumed, temp. and mode of operation).

Be guided accordingly.

Very truly yours,

**REYNALDO B. BARRA, PME**  
OIC-Regional Director



## EVALUATION OF SOURCE SPECIFIC TEST PLAN

Date Received: April 07, 2022

Date Evaluated: April 11, 2022

### I. FACILITY INFORMATION

Name of Industry: **GCGI – TONGONAN GEOTHERMAL POWER PLANT**

Industry Category: **Power Plant**

Plant Address: **Lim-ao Kananga Leyte**

Contact Person: **Ms. Arianne A. Saldares**

Position: **Environmental Officer**

Contact Number: **0917-187-7917**

Email Address: **envi.gcgi.tgpp@energy.com.ph**

Permit to Operate Reference No: **POA-2017-L-0837-0632**

Issued On: **December 29, 2017** Valid Until: **December 29, 2022**

### II. PRODUCTION INFORMATION and REQUIREMENT

The One (1) Unit 1500 KW Caterpillar Diesel Engine Generator Set should operate at a minimum required load/operating capacity of 30% and or greater of permitted capacity during the time of testing.

### III. AIR POLLUTION SOURCE INFORMATION

#### A. APSI: One (1) Unit Caterpillar Diesel Engine Genset

Rated Capacity: **1500 KW**

Type of Fuel Used: **Diesel**

Fuel Consumption:

No. of Stack: **1**

Stack Diameter:

Stack Height:

Ave. Annual Operating Hours:

Year Installed:

#### B. TEST METHODOLOGY

Particulars	Test Date	Parameters	Test Method	Test Duration	Notes
<b>One (1) Unit 1500 KW CATERPILLAR Diesel Engine Generator Set</b>	<b>April 18-22, 2022</b>	<b>Carbon Dioxide (CO<sub>2</sub>)</b>	<b>USEPA Method 3 by Fyrite</b>	<b>Three (3) runs per exhaust</b>	<b>Integrated Tedlar Bag sample during M5 Test</b>
		<b>Oxygen (O<sub>2</sub>)</b>	<b>USEPA Method 3 by Fyrite</b>	<b>Three (3) runs per exhaust</b>	<b>Integrated Tedlar Bag sample</b>
		<b>Nitrogen Oxides (NO<sub>x</sub>)</b>	<b>USEPA Method 7</b>	<b>Three (3) runs per exhaust</b>	<b>Three grab samples in flasks collected per run</b>
		<b>Carbon Monoxide (CO)</b>	<b>USEPA Method 10 by NDIR</b>	<b>Three (3) runs per exhaust</b>	<b>Integrated Tedlar bag sample during M5 Test</b>





## EVALUATION OF SOURCE SPECIFIC TEST PLAN

### C. THIRD PARTY INFORMATION

Name of Accredited Third Party: **Berksman Systems Inc. (BSI)**  
Address: **208 VAG Building, Ortigas Ave., Greenhills, San Juan City, Metro Manila**  
Name of QA/QC: **Edindo C. Fernando**  
Name of Team Leader: **Halcy Lemon P. Orquina**  
SAT Accreditation No.: **2019-72** Valid until: **April 30, 2022**  
Name of QA/QC: **Engr. Francis G. Maglinao**  
Name of Team Leader: **Engr. Evan Charl Moraleda**  
SAT Accreditation No.: **2020-118** Valid until: **July 06, 2023**  
Name of Members:  
1. **Sherwin C. Canales** Field Technician  
2. **Anacleto D. Ramirez** Driver/Technician

### D. REMARKS/RECOMMENDATIONS

1. Recommended for the approval of test plan with condition of operating the One (1) Unit 1500 KW Cummins Diesel Engine Generator Set should operate at a minimum required load/operating capacity of 30% and or greater of permitted capacity during the time of testing.
2. Emission test report shall be submitted to this office within thirty (30) days after the conduct of the test.

Prepared by:

**JOSEPH R. AURE/JANET T. POLEA**  
Source Emission Monitoring Specialist/Engineer IV

Recommending Approval:

**ENGR. CARLOS A. CAYANONG**  
Chief, WAQMS

Approved by:

**FOR. MANUEL J. SACEDA JR.**  
OIC-Chief, EMED

Noted by:

**REYNALDO B. BARRA, PME**  
OIC-Regional Director