



Pollution Control Board: Assam
Bamunimaidam; Guwahati-21
(Department of Environment & Forests: Government of Assam)
Phone: 0361-2652774 & 2550258; Fax: 0361-2550259
Website: www.pcbassam.org



No. WB/GUW/T-1279/Pt-I/09-10/10

Dated Guwahati the 14th February 2023

CONSENT TO OPERATE

'CONSENT TO OPERATE' (CTO), under Section 25 of the Water (Prevention & Control of Pollution) Act, 1974, as amended and under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981, as amended to-

- i) Name of Industry : M/s. A.G Cement LLP
- ii) Name of the Occupier / Applicant and Designation : Sri Mahavir Agarwal, Partner
- iii) Address of the unit: : Vill- Kamarkuchi, Sonapur, Kamrup (M), Assam- 782402
- iv) Cost of the project: : Rs. 618.83 Lakhs
- v) Type of the project: : Cement Grinding Unit (Red Category)
- vi) Details of Project:

SI No.	Product	Capacity
1	Cement Mill	1 x 200 TPD
2	Packaging Unit	1 x 200 TPD

- vii) Details of Products:

SI No.	Product	Quantity/ Capacity
1	Portland Pozzolana Cement (PPC)	200 MT/Day

- viii) DG set : 1 X 125 KVA

General Conditions:

- This Consent to Operate (CTO) has been accorded based on the particulars furnished by the applicant vide Application ID 1621939 and subject to addition of further or more conditions if so warranted by subsequent developments. The Consent will automatically become invalid if any change or alteration or deviation made in actual practice;
- The CTO is valid for a period up to 31.03.2028.
- This CTO may be modified, suspended or withdrawn by the Board in whole or in part during its term for cause including, but not limited to the following:-
 - Violation of any Terms and Conditions of this CTO;
 - Obtaining the CTO by misrepresentation or failure to disclose fully all relevant facts;
 - If any genuine complaint received;
- The unit shall obtain prior 'Consent to Establish' from the Board for any expansion, alteration, modification, modernization of the project.

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5. The general and Specific conditions of Environmental Clearance accorded by the MoEF & CC, GOI Vide F. No.J-11011/687/2009-IA II (I) dtd.27.08.2010 shall be complied with.
6. The unit shall install a Display Board as per the Boards notification no.PCBA/LGL-95/2021/Notification/01 dtd.11.11.2021 (Appendix-A)
7. Proper housekeeping shall be maintained. Burning of any waste inside the premises is prohibited.
8. The project proponent shall develop a greenbelt/plantation area with native trees only at least 33% of the total plot area.
9. Environmental Statement in prescribed Form-V should be submitted on or before the 30th September every year.
10. Domestic Wastewater generated from the factory and colony shall have to be treated in a Sewage Treatment Plant. This treated water shall be utilized in greenbelt development/spraying around the plant and colony.
11. As per the provisions of the Water (Prevention and Control of Pollution) Act, 1974 as amended and the Air (Prevention and Control of Pollution) Act, 1981, as amended, any Officer, empowered by the Board on its behalf shall have without interruption, the right at any reasonable time to enter the unit for inspection, collection of sample for analysis and may call for any information as deemed necessary. Denial of this right will cause withdrawal of the CTO.
11. The unit shall apply for renewal atleast 90 (ninety) day before expiry of the validity of this CTO.

Specific Conditions:

A) Air Aspect:

1. Details of Project:

Sl No.	Unit	Capacity	APC Device	ID Fan Capacity	Chimney Height and Dia.
1	Cement Mill and Packaging Section	1 x 200 TPD	Pulse Jet Bag Dust Collector (72 Bags)	20000 m ³ /hr	H-14 m Ø- 0.5 m
2	Raw Material Feeding Section		Pulse Jet Bag Dust Collector (48 Bags)	10000 m ³ /hr	H-14 m Ø- 0.5 m

2. The minimum height of all the chimneys shall be increased to twenty (20) meters from Ground level.
3. Location of sampling port shall be provided as specified in CPCB guidelines for Emission Regulations (December 1985), Part-III (Appendix-B)
4. The unit shall comply with the specific emission standards, notified by the MoEF & CC, Govt. of India, vide GSR.612(E) dated 25th August, 2014, as applicable for all its chimney emission (Part-A of Appendix-C)
5. The unit shall comply with the standards and guidelines for control of noise pollution from stationary Diesel Generator (DG) set, notified by the MoEF & CC, Govt. of India vide, GSR 7, dated Dec.22, 1998 (Appendix-D)
6. The unit shall meet with noise level standard, notified by the MoEF & CC, Govt. of India vide GSR 7 dated Dec.22, 1998, as mentioned herein under-

Limit in dB (A) Leq	
Day Time (6:00am-9:00pm)	Night Time (9:00pm-6:00am)
75	70

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7. The industry shall meet the National Ambient Air Quality Standards, notified by the MoEF & CC, GOI, vide GSR 826(E) dtd.16.11.2009, especially with respect to SO₂, NO₂, PM_{2.5} and PM₁₀, as mentioned herein under-

Sl. No.	Pollutants	Time Weighted average	Concentration in Ambient Air (Industrial, Residential, Rural Areas) µg/m ³
1.	SO ₂ (µg/m ³)	Annual	50
		24 hours	80
2.	NO ₂ (µg/m ³)	Annual	40
		24 hours	80
3.	PM ₁₀ (µg/m ³)	Annual	60
		24 hours	100
4.	PM _{2.5} (µg/m ³)	Annual	40
		24 hours	60

8. On-line Continuous Emission Monitoring System (OCEMS) for Particulate Matter (PM) emission shall be properly maintained and OCMMS RT-DAS data should be regularly transmitted to Pollution Control Board, Assam and Central Pollution Control Board.
9. The unit shall install the following measures for control of source and fugitive emission.
 - a) Dust containment cum suppression system at Raw Material Feed Hoppers, all the material transfer & dropping points.
 - b) Construction of the metallic roads within the premises.
 - c) Regular cleaning and water sprinkling at the ground and in the haul roads.
10. Vehicle wheel washing system shall be installed at entry and exit gate of the factory.
11. Water sprinklers shall be installed along the haul roads for control of fugitive emissions inside factory campus to suppress the dust.

B) Water Aspect:

1. Details of source of water, raw water consumption, effluent generation etc.
 - a) Source of water : Ground water
 - b) Raw water consumption : 3 KL/Day
 - c) Effluent generation : 2 KL/Day
 - d) Effluent recycled : 2 KL/Day
 - e) Capacity of ETP : 2 KL/Day
 - f) Permission of CGWA : Obtained
2. For discharge of treated water, the unit shall comply with specific discharge standards, notified by the MoEF & CC, Govt. of India, vide GSR. 612(E) dated 25th August, 2014 (Part-B of Appendix-C)
3. The unit shall maintain 'Zero Liquid Discharge' condition.
4.
 - i) Storm water shall not be allowed to mix with effluent and/or floor washing.
 - ii) Storm water within the battery limits shall be channelized through separate drain/pipe passing through an Oil and Grease Trap cum Sedimentation tank.
 - iii) For Storm water discharge, the unit shall comply with general discharge standards, notified by the MoEF & CC, GOI, vide GSR.422 (E) dated.19.05.1993 (Appendix-E)
5. Rain water harvesting facility shall be maintained. A rain water harvesting pond shall be maintained within the premises. For water sprinkling of haul roads, water from the harvesting pond shall be used.
6. Adequate covered storage sheds for fly-ash shall be provided to prevent leachate and runoff from the storage yard.

C) E-Waste Aspects:

The unit shall comply with the provisions of E-Waste (Management) Rules, 2022.

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D) Plastic Waste Aspect:

1. The unit shall apply for 'Registration' through the online centralized portal developed by CPCB (<https://www.cpcbepplastic.in>) immediately.
2. The Unit shall implement EPR (Extended Producers Responsibility) and fulfill the EPR target as per the guidelines.
3. Plastic Waste generated in the unit shall be quantified and disposed of in accordance of the provisions under the Plastic Waste Management Rules, 2016.
4. The unit shall submit the Annual return under the Plastic Waste Management Rules, 2016 within 30th June every year.

E) Solid Waste Aspect:

1. Adequate facility shall be created for collection, storage, transportation, treatment and disposal of non-hazardous solid waste generated from the unit.
2. Adequate system shall be adopted on reduction of waste generation and enhancement of re-utilization and recycling of waste materials.
3. Solid waste generated in the unit shall be disposed of as per the provisions of the Solid Waste Management Rules, 2016.

F) Hazardous Waste Aspect:

1. Authorization under the Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016 shall be obtained from the Board.
2. The unit shall comply with the provisions of the said Rules.
3. Adequate facilities shall be provided for collection and storage of used/spent oil, which shall be sent to registered recyclers for recycling.
4. The unit shall dispose of any other hazardous waste generated from the unit in accordance to the provisions of the said Rules.
5. The unit shall maintain proper records of hazardous waste generation in Form-III under the said Rules.
6. The unit shall submit the annual return under the said Rules in Form-IV within 30th June every year.

The unit shall submit compliance report of the mandated conditions by April, 15, every year to Member Secretary, PCBA as well as to Regional Office, Guwahati, PCBA. The Board will have the liberty to withdraw the CTO if adequate pollution control and safety measures are not implemented by the unit and the mandated conditions are not complied with.

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(Shantanu Kr. Dutta)
Member Secretary

Memo No. WB/GUW/T-1279/Pt-I/09-10/10-A

Dated Guwahati the 14th February 2023

Copy to: -

✓ M/s A.G Cement LLP, 14th Mile, Vill-Sarutari, Byrnihat, Kamrup (M), Assam- 782402 for information and compliance of conditions.

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(Shantanu Kr. Dutta)
Member Secretary



**Pollution Control Board, Assam
Bamunimaidam, Guwahati-21**



NOTIFICATION

No. PCBA/LGL-95/2021/Notification/01

Dated Guwahati, the 11th Nov, 2021

In exercise of the powers conferred under Section-5 of the Environment (Protection) Act, 1986 as amended till date and keeping in view the need of public interest towards dissemination of vital information regarding Consent/Authorization of this Board, all industries are hereby directed to install a Display Board of minimum size 5'x4', near the main entrance gate.

The format of the display board is given below:

Name and Address of the Unit : M/s.	
Description of Consent/Authorization	Details
Consent to Establish (CTE)	No.: Date of Issue:
Consent to Operate (CTO)	No.: Date of validity:
Authorization under Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016 (if applicable)	No.: Date of Issue: Date of validity:

Member Secretary

Memo No. PCBA/LGL-95/2021/Notification/01-A
Copy to:

Dated Guwahati, the 11th Nov, 2021

1. ✓ The Commissioner & Secretary to the Govt. of Assam, Department of Environment & Forest, Dispur for kind information.
2. P.A. to the Chairman, PCBA for kind appraisal of the Hon'ble Chairman.
3. The All Regional Heads, PCBA for information & necessary action.
4. M/S APS Advertising Pvt. Ltd, Guwahati-1. They are requested to publish the "NOTICE" in "the Assam Tribune" and "Dainandin Barta" on 12.11.2021.
5. Notice Board, Head Office / Website (www.pcbassam.org), PCBA.

Member Secretary

[Signature]
Member Secretary



Location of sampling port as per CPCB's emission regulation guideline part-III

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2.5.0 Location of Sampling Port

To ensure laminar flow the sampling ports shall be located at atleast 8 times chimney diameter down stream and 2 times up stream from any flow disturbance. For a rectangular cross section the equivalent diameter (D_e) shall be calculated from the following equation to determine up stream, down stream distances.

$$D_e = \frac{2LW}{L+W}$$

Where L = Length in m, W = width in m.

Sometimes it may so happen for existing chimneys that sufficient physical chimney height is not available for desired sampling location in such cases additional traverse points shall be taken as given under 2.4.0.

The sampling port should be preferably provided on the delivery side of duct or chimney and not on the suction side.

MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE
NOTIFICATION

New Delhi, the 25th August, 2014

G.S.R. 612(E).— In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely :—

1. (1) These rules may be called the Environment (Protection) (Fifth Amendment) Rules, 2014.
- (2) They shall come into force on the date of their publication in the Official Gazette.
2. In the Environment (Protection) Rules, 1986,—
- (a) in Schedule I, for serial number 10 and entries relating thereto, the following serial number and entries shall be substituted, namely :—



S. No. (1)	Industry (2)	Parameter (3)	Standards (4)		
"10"	Cement Plant (without coprocessing), Standalone Clinker Grinding Plant or, Blending Plant	A - Emission Standards			
		(i) Rotary Kiln - without coprocessing			
			Date of Commissioning	Location	Concentration not to exceed, in mg/ Nm ³
			(a)	(b)	(c)
		Particulate Matter	on or after the date of notification	anywhere in the country	30 (with effect from 01.01.2016)

[भाग II-खण्ड 3(i)]


भारत का राजपत्र : असाधारण

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			critically polluted area or urban centres with population above 1.0 lakh or within its periphery of 5.0 kilometre radius	50 (with effect from 01.01.2015)
		before the date of notification		30 (with effect from 01.06.2016)
			other than critically polluted area or urban centres	100 (with effect from 01.01.2015)
				30 (with effect from 01.06.2016)
		Sulphur Dioxide (SO ₂)	irrespective of date of commissioning	anywhere in the country 100
		Nitrogen Dioxide (NO ₂)	on or after the date of notification	anywhere in the country 600 (with effect from 01.06.2015)
			before the date of notification	anywhere in the country 800 (with effect from 01.01.2016)

(1)	(2)	(3)	(4)		
			(a)	(b)	(c)
		(ii) Vertical Shaft Kiln - (without coprocessing)			
			on or after the date of notification	anywhere in the country	50 (with effect from 01.06.2016)
		Particulate Matter (PM)	before the date of notification	critically polluted area or urban Centres with population above 1.0 lakh or within its periphery of 5 kilometre radius	100 (with effect from 01.06.2015)
					75 (with effect from 01.06.2016)
				other than critically polluted area or urban centres	150 (with effect from 01.01.2015)
		Sulphur Dioxide (SO ₂)	-	-	200 (with effect from 01.01.2016)
		Nitrogen Dioxide (NO ₂)	-	-	500 (with effect from 01.01.2016)

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	<p>Note :—</p> <p>a. The height of each stack including Clinker Grinding Plant, Coal Mill, Raw Mill, Grinding, Packaging Section, etc. shall be of a minimum of 30 metres or, as per the formula $H=14(Q)^{0.75}$, whichever is more, where "H" is the height of stack in metres and "Q" is the maximum quantity of SO₂ expected to be emitted in kg/hr through the stack at 100 per cent rated capacity of the plant and calculated as per the norms of gaseous emission.</p> <p>b. Above norms shall be applicable even if pet-coke is mixed with coal or, used alone for clinker making in kiln provided, pet-coke has been notified as 'approved fuel' by the concerned State Pollution Control Board/ Pollution Control Committee under the Air (Prevention and Control of Pollution) Act, 1981.</p> <p>c. All monitored values for SO₂ and NO₂ shall be corrected to 10% Oxygen, on dry basis. The norms for SO₂ and NO₂ shall be applicable to stacks attached to kiln.</p> <p>d. Scrubber meant for scrubbing emissions shall not be used as quencher. Plants having separate stack for gaseous emission for the scrubbing unit, the height of this stack shall be atleast equal to the main stack.</p>			

(1)	(2)	(3)	(4)
		B.- Service wastewater- (without coprocessing)	
		All efforts shall be made by the industry for 'zero discharge' of service wastewater. In case, the industry prefers to discharge service wastewater, the following norms shall be complied with:	
		Concentration not to exceed, milligramme per litre (except pH and temperature)	
		pH	5.5 to 9.0
		Suspended Solids	100
		Oil and Grease	10
		Temperature	not more than 5°C higher than the intake water temperature
		C.- Stormwater	
		(I) Stormwater shall not be allowed to mix with effluent, treated sewage, scrubber water and/ or floor washings.	
		(II) Stormwater within battery limits of industry shall be channelized through separate drain(s) as per natural gradient passing through high density polyethylene lined pit(s) each having holding capacity of 10 minutes (hourly average) of rainfall for its catchment area."	

[भाग II—खण्ड 3(i)]

भारत का राजपत्र : असाधारण

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(b) in Schedule VI, under 'PART- D' relating to General Emission Standards, in item III relating to Load/Mass based standards, after serial number 9, and the entries relating thereto, the following serial number and entries shall be inserted, namely :—

(1)	(2)	(3)	(4)
"10"	Cement Plants (without coprocessing)	Rotary kiln based plants (Particulate Matter from raw mill, kiln and pre-calciner system put together).	0.125 Kg/ tonne of clinker (with effect from 01.01.2017)
		Vertical shaft kiln based plants (Particulate Matter from raw mill and kiln put together)	0.50 Kg/ tonne of clinker (with effect from 01.01.2017) ."

[F. No. Q-15017/30/2007-CPW]

DR. RASHID HASAN, Advisor

Note:—The principal rules were published in the Gazette of India vide number S.O. 844 (E), 19th November, 1986 and subsequently amended vide notifications numbers S.O. 433 (E), dated 18th April 1987; G.S.R. 97 (E), dated the 18th February, 2009; G.S.R. 149 (E), dated the 4th March, 2009; G.S.R. 739 (E), dated the 9th September, 2010; G.S.R. 809(E), dated, the 4th October, 2010, G.S.R. 215 (E), dated the 15th March, 2011; G.S.R. 221(E), dated the 18th March, 2011; G.S.R. 354 (E), dated the 2nd May, 2011; G.S.R. 424 (E), dated the 1st June, 2011; G.S.R. 446 (E), dated the 13th June, 2011; G.S.R. 152 (E), dated the 16th March, 2012; G.S.R. 266(E), dated the 30th March, 2012; and G.S.R. 277 (E), dated the 31st March, 2012; and G.S.R. 820(E), dated the 9th November, 2012; G.S.R. 176 (E), dated the 18th March, 2013; G.S.R. 535(E), dated the 7th August, 2013; G.S.R. 771(E), dated the 11th December, 2013; G.S.R. 2(E), dated the 2nd January, 2014; G.S.R. 229 (E), dated the 28th March, 2014; G.S.R. 232(E), dated the 31st March, 2014; and G.S.R. 325(E), dated the 7th May, 2014.

(1)
Appendix –D



1.66.0 STANDARDS AND GUIDELINES FOR CONTROL OF NOISE POLLUTION FROM STATIONARY DIESEL GENERATOR (DG) SETS.

(A) Notes standards for DG sets (15-500KVA)

The total sound power level LW of DG set should less than $94 + 10 \log 10\text{KVA}$, dB (A), at the manufacturing stage, whether; KVA is the nominal power rating of a DG set.

This level should fall by 5dB (A) every five years, till 2007, i.e. in 2002 and then in 2007.

(B) Mandatory Acoustic enclosure/Acoustic treatment of room for stationary DG sets (5KVA and above):

Noise from the DG set should be controlled by providing an acoustic enclosure on by treating the room acoustically.

The acoustic enclosure/acoustic treatment of the room should be designed for minimum 25 dB (A) insertion Loss or for meeting the ambient noise standards, which ever is on the higher side (if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/acoustic treatment. Under circumstances the performance may be checked for noise reduction up to actual ambient noise level, preferably, in the night time). The measurement for insertion Loss may be done at different points at 0.5 from the acoustic enclosure/room, and then averaged. (See the Schematic Diagram).

The DG set should also be provided with proper exhaust muffler with Insertion Loss of minimum 25 dB (A).

Guidelines for the manufacturers Users of DG sets 5KVA and above:

- The manufacture should offer to the user a standard acoustic enclosure of 25dB (A). Insertion Loss and also a suitable exhaust muffler with Insertion Loss of 25dB (A).
- The user should make efforts to bring down the noise levels due to the DG set, outside his premises, within the ambient noise requirements by proper siting and control measures.
- The manufacturer should furnish noise power levels of the unsalaried DG sets as per standards prescribed under (A).
- The total sound power level of a DG set, at the user's and, shall be within 2dB(A) of the total sound power level of the DG set, at the manufacturing stage, as prescribed under (A).
- Installation of DG set must be strictly in compliance with the recommendation of the DG set manufacture.
- A proper routines and preventive maintenance procedure for the DG set manufacturer which would help prevent noise levels of the DG set from deteriorating with use.

2.44.0 NOISE (AMBIENT STANDARDS)

Area Code	Category of Area	Limit in dB (A) Leq.	
		Day time	Night time
A.	Industrial area	75	70
B.	Commercial area	65	55
C.	Residential area	55	45
D.	Silence Zone	50	40

Note – 1 : Day time is reckoned in between 6.00 A.M. and 9.00 P.M.

Note – 2 : Night time is reckoned in between 9.00P.M. and 6.00 A.M.

Note – 3 : Silence zone is defined as areas up to 100 meters around such premises as hospitals, educational institutions and courts. The silence zones are to be declared by the competent Authority.

Note – 4 : Mixed categories of areas should be declared as one of the four above mentioned categories by the competent Authority and the corresponding standard shall apply.

Source: EPA, 1986
[GSR 7, dated Dec.22, 1998]



Source: EPA, Notification
[GSR 1063 (E), dated Dec., 26, 1998]

3.22.0 DIESEL GENERATOR SETS : STACK HEIGHT

1. The minimum stack height to be provided with each generator set shall be worked out as per the following formula:- $H = h + 0.2 \sqrt{KVA}$, where H = Total height of stack in meter.

h = Height of the building in meters where generator set is installed.

KVA = Total generator capacity.

Adequate fire fighting measures have to be provided by the occupier of the premises. Based on the above formula the minimum stack height to be provided with different range of generator sets may be categories as follows:

Range of Generator sets	Minimum Stack Height
50 KVA	Ht. of the building + 1.5 metre.
50 – 100 KVA	Ht. of the building + 2.0 metre.
100 -150 KVA	Ht. of the building + 2.5 metre.
150 - 200 KVA	Ht. of the building + 3.0 metre.
200 - 250 KVA	Ht. of the building + 3.5 metre.
250 - 300 KVA	Ht. of the building + 3.5 metre.

Similarly for higher KVA rating a stack height can be worked out using the above formula.

Source : Evolved by CPCB
[Emission Regulations Part-IV: COINDS/26 1986-87]

4. A .32.0 Part – C

Sl. No. 1 Stack Gas : PM – 150 µg/Nm³

B. Ambient Air Standards:

Residential Area	Industrial Area	Sensitive Area
SO ₂ : 80* µg/m ³	120* : µg/m ³	30* : µg/m ³
NO ₂ : 80* µg/m ³	120* : µg/m ³	30* : µg/m ³
CO : 2.0** µg/m ³	5.0** : µg/m ³	1.0** : µg/m ³
*24 hourly; ** 8 hourly		

5. SCHEMATIC DIAGRAM OF D.G. SET IN AN ACOUSTIC ENCLOSURE No. Process/71/1998-99.

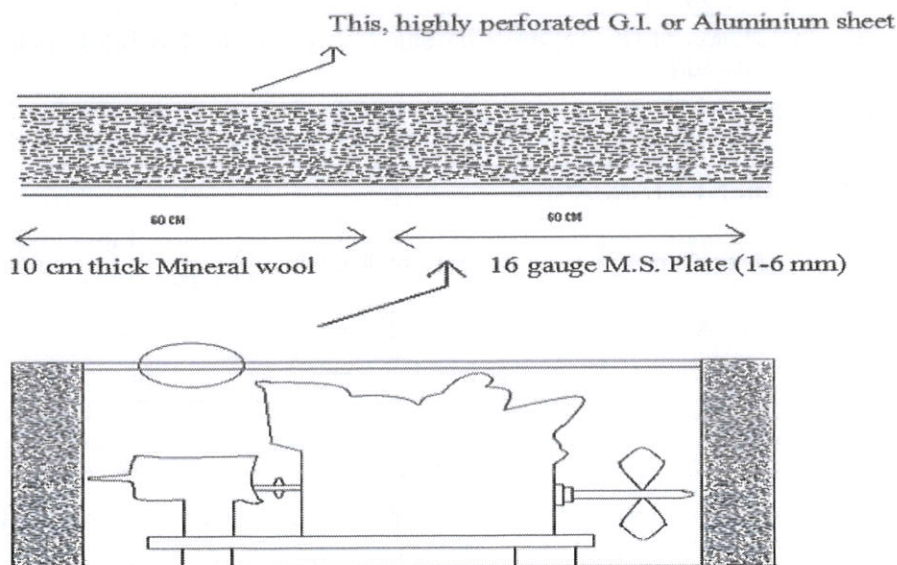


Fig. 4 Schematic Diagram of the DG set in an Acoustic Enclosure

Air required for the ventilation and breathing of the engine will have to be provided by means of intake louvers and exhaust louvers (called parallel baffle mufflers) projecting out of the enclosure.

(Shantanu Kr. Dutta)
Member Secretary
Pollution Control Board, Assam

¹[SCHEDULE – VI]
(See rule 3A)

GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENTAL
POLLUTANTS PART-A : EFFLUENTS



S. No.	Parameter	Standards			
		Inland surface water	Public Sewers	Land for irrigation	Marine coastal areas
1	2	3			
		(a)	(b)	(c)	(d)
1.	Colour and odour	See 6 of Annexure-I	--	See 6 of Annexure-I	See 6 of Annexure-I
2.	Suspended solids mg/l, Max.	100	600	200	(a) For process waste water-100 (b) For cooling water effluent 10 percent above total suspended matter of influent.
3.	Particulate size of suspended solids	Shall pass 850 micron IS Sieve	--	--	(a) Floatable solids, max. 3 mm. (b) Settleable solids, max. 850 microns.
² 4.	***	*	--	***	--
5.	pH Value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6.	Temperature	shall not exceed 5°C above the receiving water temperature	--	--	shall not exceed 5°C above the receiving water temperature

¹ Schedule VI inserted by Rule 2(d) of the Environment (Protection) Second Amendment Rules, 1993 notified vide G.S.R. 422(E) dated 19.05.1993, published in the Gazette No. 174 dated 19.05.1993.

² Omitted by Rule 2(d)(i) of the Environment (Protection) Third Amendment Rules, 1993 vide Notification No.G.S.R.801(E), dated 31.12.1993.



S. No.	Parameter	Standards			
		Inland surface water	Public Sewers	Land for irrigation	Marine coastal areas
1	2	3			
		(a)	(b)	(c)	(d)
7.	Oil and grease mg/l Max.	10	20	10	20
8.	Total residual chlorin mg/l Max.	1.0	--	--	1.0
9.	Ammonical nitrogen (as N), mg/l Max.	50	50	--	50.
10.	Total Kjeldahl Nitrogen (as NH ₃) mg/l, Max.	100	--	--	100
11.	Free ammonia (as NH ₃) mg/l, Max.	5.0	--	--	5.0
12.	Biochemical Oxygen demand ¹ [3 days at 27°C] mg/l max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/l, max.	250	--	--	250
14.	Arsenic (as As), mg/l, max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg), mg/l, Max.	0.01	0.01	--	0.01
16.	Lead (as Pb) mg/l, Max.	0.1	1.0	--	2.0
17.	Cadmium (as Cd) mg/l, Max.	2.0	1.0	--	2.0
18.	Hexavalent Chromium (as Cr+6), mg/l max.	0.1	2.0	--	1.0

¹ Substituted by Rule 2 of the Environment (Protection) Amendment Rules, 1996 notified by G.S.R.176, dated 2.4.1996 may be read as BOD (3 days at 27°C) wherever BOD 5 days 20°C occurred.



S. No.	Parameter	Standards			
		Inland surface water	Public Sewers	Land for irrigation	Marine coastal areas
1	2	3			
		(a)	(b)	(c)	(d)
19.	Total chromium (as Cr.) mg/l, Max.	2.0	2.0	--	2.0
20.	Copper (as Cu) mg/l, Max.	3.0	3.0	--	3.0
21.	Zinc (As Zn.) mg/l, Max.	5.0	15	--	15
22.	Selenium (as Se.) mg/l, Max.	0.05	0.05	--	0.05
23.	Nickel (as Ni) mg/l, Max.	3.0	3.0	--	5.0
¹ 24.	***	*	*	*	*
¹ 25.	***	*	*	*	*
¹ 26.	***	*	*	*	*
27.	Cyanide (as CN) mg/l Max.	0.2	2.0	0.2	0.2
¹ 28.	***	*	*	*	*
29.	Fluoride (as F) mg/l Max.	2.0	15	--	15
30.	Dissolved Phosphates (as P), mg/l Max.	5.0	--	--	--
² 31.	***	*	*	*	*
32.	Sulphide (as S) mg/l Max.	2.0	--	--	5.0
33.	Phenoile compounds (as C ₆ H ₅ OH) mg/l, Max.	1.0	5.0	--	5.0

¹ Omitted by Rule 2(d)(i) of the Environment (Protection) Third Amendment Rules, 1993 vide Notification No.G.S.R.801(E), dated 31.12.1993.



1	Parameter	Standards			
		Inland surface water	Public Sewers	Land for irrigation	Marine coastal areas
2		3			
		(a)	(b)	(c)	(d)
34.	Radioactive materials :				
	(a) Alpha emitter micro curie/ml.	10^{-7}	10^{-7}	10^{-8}	10^{-7}
	(b) Beta emitter micro curie/ml.	10^{-6}	10^{-6}	10^{-7}	10^{-6}
35.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
36.	Manganese (as Mn)	2 mg/l	2 mg/l	--	2 mg/l
37.	Iron (as Fe)	3 mg/l	3 mg/l	--	3 mg/l
38.	Vanadium (as V)	0.2 mg/l	0.2 mg/l	--	0.2 mg/l
39.	Nitrate Nitrogen	10 mg/l	--	--	20 mg/l
¹ 40.	***	*	*	*	*

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¹ Omitted by Rule 2(d)(i) of the Environment (Protection) Third Amendment Rules, 1993 vide Notification No. G.S.R. 801(E) dated 31.12.1993