SPEED POST

STATE POLLUTION CONTROL BOARD, ODISHA

(DEPARTMENT OF FOREST &ENVIRONMENT, GOVERNMENT OF ODISHA)
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No. 3544 / IND-I-CON-5335 Dt. 20.03.2020

CONSENT ORDER

Sub: Consent for Existing / New operation of the plant under Section 25 of the Water (Prevention & Control of Pollution) Act, 1974 and under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981.

Ref : Your online application **ID No. 2830187, dtd. 29.12.2019**

This consent order is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed there under to;

Name of the Industry: **M/s. Shyam Metalics & Energy Ltd., At- Pandloi, Po – Rengali, Dist – Sambalpur**

Name of the Occupier & Designation; **Mr. Bhagwan Shaw, Director**
Address: **At- Pandloi, Lapanga, Sambalpur**

This consent order is valid for the period **from 01.04.2020 to 31.03.2021**

This consent order is valid for the product quantity, specified outlets, discharge quantity and quality, specified chimney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.

A. Details of Products Manufactured

Sl.No.	Product	Quantity
1.	Sponge Iron – DRI Kiln - I & II	2x350 TPD
2.	Sponge Iron – DRI Kiln –III & IV	2x100 TPD
3.	Sponge Iron – DRI Kiln –V, VI & VII	3x500 TPD
4.	Captive Power Plant	25MW (15 MW WHRB +10 MW AFBC) 3x11 MW WHRB
5.	Captive Power Plant -I & II	2x30 MW
6.	Rolling Mill	5000 TPM
7.	Structural Mill	60,000 TPA,
8.	Pipe Mill	30,000 TPA
9.	TMT Rod Mill	60,000 TPA
10.	Wire and Rod Mill	2,00,000 TPA
11.	Coal washery	0.3 MTPA
12.	Pellet Plant (0.6 MTPA + 0.6 MTPA)	1.2MTPA

13.	SMS Plant –I Induction Furnace (Steel Billets)	4x18 T/Heat
14.	SMS Plant-II Induction Furnace (Steel Billets)	4x8 T/Heat
15.	SMS Plant-III Induction Furnace (Steel Billets)	4x12 T/Heat
16.	Ferro Alloys Plant	3x11MVA, 2x9 MVA & 2x6 MVA
17.	Railway Siding (Storing and transportation of Iron Ore, Coal, Dolomite, Lime Stone, Billet, Sponge Iron, Manganese Ore, TMT Bars, Chrome Ores, Structural & Coke)	30.66 Lakh MT/Annum

B. Discharge permitted through the following outlet subject to the standard

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge	Prescribed standard			
1.	Domestic effluent	Soak pit via septic tank	No discharge	--	--	--	--
2	Cooling water	To be completely recycled	No discharge	--	--	--	--

C. Emission permitted through the following stack subject to the prescribed standard

Chimney / Stack No.	Description of Stack	Stack height (m)	Quantity of emission (Nm^3/hr)	Prescribed Standard mg/Nm3				
1.	**Stack attached to ESP of**			**PM**				**CO (Vol/ Vol)**
a)	DRI Kiln No. III & IV (Common)	70	70,000	100				1%
				PM	**SO2**	**NOx**	**Hg**	
b)	DRI Kiln – I, II & AFBC Boiler (10 MW)	70	1,42,350 99,000	50	600	300	0.03	--
2.	**Stack attached to CPP-I & II**	86	2x2,21,400	50	600	300	0.03	--
3.	**Common Bag filter attached to DRI Kiln – I,II, III & IV**							--
	Feeds circuit	20	12,000	100				--
	Cooler discharge & transfer house belt	30	1,10,000	100				--
	I-Bin & Product Separation Bin	20	90,000	100				--
	Stock House	27	30,000	100				--
	Product House	20	15,000	100				--

	Coal Injection	20	5,000	100	--
	Char Bunker	20	5,000	100	--
	Cooler discharge -III	20	15,000	100	--
4.	**Stack attached to ESP of WHRB**				
	DRI Kiln –V & VI	60	2x1,02,424	50	1%
5.	Stack attached to ESP of DRI Kiln-VII	60	1,02,424	50	1%
6.	**Common Bag filter attached to DRI Kiln – V, VI & VII**				--
	Stock house	28	37,000	50	--
	Char Bunker	28	16,200	50	--
	Coal Crusher and Screening Building	28	22500	50	--
	Product Silo discharge	28	16200	50	--
	Loading Bunker	28	22500	50	--
	PSB Bag Filter	28	75000	50	--
7	**Stack attached to main ESP (travelling grate) of Pellet Plant**	65	4,40,000	100	--
8	**Heating Chamber new 0.6 MTPA Pellet Plant**	**70**	**4,00,000**	**100**	--
9	**Coal pulverizing unit**	**20**	**38,500**	**100**	--
10	**Stack attached to reheating furnace of rolling mill (Oil Fired/ Producer Gas)**	30	----	100	--
11	Induction Furnace -I & II of SMS-I	25	30,000	100	--
12	Induction Furnace – III, IV & V of SMS-I	25	45,000	100	
13	Induction Furnace –I & II of SMS-II	25	30,000	100	--
14	Induction Furnace – I& II of SMS-III	25	30,00	100	--
15	Common stack attached to bag filter of induction furnaces –III & IV	25	36,000	**100**	--
16	GCP of FAP (2x6 MVA)	40	1,20,000	100	--
17	Stack attached to GCP of FAP (2x9 MVA)	40	1,20,000	100	--
18.	Stack attached to GCP of FAP (2x11 MVA)	40	1,40,000	100	--
19	Stack attached to GCP of 1x11 MVA	40	1,40,000	100	--
20	DRI Kiln –VII	60	1,02,424	50	--
21	Reheating Furnace of Rolling Mill	25	--	100	--

D. Disposal of solid waste permitted in the following manner

Sl.No.	Type of Solid waste	Quantity generated	Quantity to be reused on site	Quantity to be reused off site	Quantity disposed off	Description of disposal site.
1.	Dolochar & dust from APC devices (DRI Kiln-I,II,III, IV, V, VI, VII)	1210 TPD	Nil	--	1210 TPD	To be used as fuel in AFBC Power Plant and balance will be dumped at designated dump site inside premises
2.	Fly and bottom ash of AFBC Boiler	1,38,240 TPA	--	--	--	To be disposed off as per fly ash Utilization Notification of Govt. of India, 2009.
3.	Middlings of the coal washery	--	--	---	---	Reuse in AFBC Power plant
7.	Slag from FAPs	80 TPD	--	--	80 TPD	Shall be used for road making, land development and balance shall be disposed in designated solid waste dump area.
8.	Mill Scale	3000	--	---	3000	Completely reuse in pellet plant

E. GENERAL CONDITIONS FOR ALL UNITS

1. The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
2. The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / and products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control equipment / system etc.
3. The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
4. The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. . In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.

5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
6. The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
7. This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
9. An inspection book shall be opened and made available to Board's Officers during their visit to the factory.
10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
11. Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been taped by the consumer for utilization for any purposes whatsoever.
12. Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
    a) Industrial cooling, spraying in mine pits or boiler feed,
    b) Domestic purpose
    c) Process
13. The applicant shall display suitable caution board at the lace where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.
14. Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
15. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
16. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
17. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
18. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
19. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
20. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
21. The sludge generated from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank of treatment plant.
22. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
23. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein.
24. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.
25. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
26. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
27. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner to the meet the prescribed standards by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).

28. The stack and ambient monitoring system installed by the applicant shall be opened for inspection to this Board at any time.
29. There shall not be any fugitive or episodal discharge from the premises.
30. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
31. The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurence.
33. The industry has to ensure that minimum three varieties of indigenous species of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as no to cause fugitive emission, dust problems through leaching etc., of any kind.
35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
    i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
    ii) Controlled incineration, wherever possible in case of combustible organic material.
    iii) Composting, in case of bio-degradable material.
36. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
38. The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
40 Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
42. The industry shall comply to all the conditions stipulated under Charter on Corporate Responsibility for Environmental Protection (CREP) guidelines in a time bound manner as envisaged there in. (if applicable)
43. The industry shall comply to the conditions stipulated in CTE order issued by ODISHA State Pollution Control Board.
44. The industry shall abide by E(P) Act, 1986 and Rules framed there-under
45. In case the consent fee is revised upward or the fees paid is found to be inadequate for any reason during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the adequate amount within the period stipulated by the Board the consent order will be revoked without prior notice.
46. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate.

GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs 50 CRORES, AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A).

1. The applicant shall analyze the effluent / emissions and Ambient Air Quality every month through approved laboratory for the parameters indicated in TABLE- 'B', 'C' & Part -'B' as mentioned in this order and shall furnish the report thereof to the Board on monthly basis.
2. The following information shall be forwarded to the Member Secretary on or before 10th of every month.

a) Performance / progress of the treatment plant.
b) Monthly statement of daily discharge of domestic and/or trade effluent.

3. Non-compliance with effluent limitations

a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
   i) Causes of non-compliance
   ii) A description of the non-compliance discharge including its impact on the receiving waters.
   iii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
   iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
   v) Steps to be taken by the applicant too prevent the condition of non-compliance.

b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.

4. Proper housekeeping shall be maintained inside the factory premises including process areas by a dedicated team.

5. The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.

6. The industry shall engage dedicated qualified manpower to ensure continuous and effective operation of online stack / Ambient Air Quality / Effluent monitoring stations for maintenance of database, real time data transfer to SPCB server, data analysis and co-ordination with concerned personnel of process units for taking corrective measures in case of non-compliances and to respond to the instructions of SPCB in this matter.

F. SPECIAL CONDITIONS:

AIR POLLUTION CONTROL

1. All the air pollution control devices like ESPs / GCPs / Bag filters installed at various process units shall be maintained, operated efficiently and continuously so that particulate matter emission from the stack shall meet the prescribed standard of the Board as indicated in 'Table-C'. The industry shall ensure continuous and effective operation of all the APC devices through preventive maintenance.

2. All the potential fugitive dust generating areas of all the process units shall be covered with the adequate suction points. The collected dust / fumes shall be treated in the GCPs / Bag filters/ Scrubbers.

3. There shall be no leakage of flue gas through the emergency caps, slip rings or any other process areas of DRI kilns except during exigencies.

4. Appropriate air pollution control devices shall be installed to collect and treat the secondary emissions from tapping area and casting areas of Ferro alloy furnaces.

5. All the online continuous stack emission monitoring systems (CEMS) for measurement of particulate matter and gaseous pollutants shall be operated effectively & uninterruptedly.

Online monitoring data generated shall be transmitted to SPCB and CPCB server on a continuous basis.

6. All the online ambient air monitoring systems (CAAQMS) installed shall be operated effectively & uninterruptedly. Online monitoring data generated shall be transmitted to SPCB and CPCB server on a continuous basis
7. The industry shall ensure tampered proof real time transmission of online monitoring data to the server of CPCB and SPCB and maintain the health of the analyzers and data connectivity through valid AMC.
8. The industry shall strictly follow the guidelines of CPCB dated July, 2018 for Online Continuous Effluent Monitoring Systems (OCEMS) and Guidelines for continuous Emission Monitoring Systems dtd. August, 2018 for PM and other gaseous pollutants.
9. Steps shall be taken for regular monitoring of Mercury (Hg) in the stack of AFBC boiler and submit data to the Board.
10. The unit shall provide low NOx burners to reduce NOx emission to keep the level within the prescribed standard by MoEF & CC vide Notification dtd. 07.12.2015.
11. Steps shall be taken for installation of Flue Gas Desulpurisation (FGD) system in future if required to keep the SO2 level within 600mg/Nm3 to confirm the MoEF & CC Notification dtd. 07.12.2015. This shall also include management and disposal of effluent / solid waste to be generated from FGD system.
12. Fume generated from the induction furnaces shall be collected through adequately designed swiveling hoods. The collected dust / fumes shall be treated in the Bag filters.
13. Telescopic chute shall be installed at the bottom of hoppers/silo wherever applicable to prevent emission of fugitive dust during material transfer/unloading.
14. Iron ore and coal used in the plant shall be stored under covered shed. Material storage area of the plant, approach roads shall be covered with adequate sprinkling facility. The water sprinkling system shall be kept operational all the time to avoid any fugitive dust nuisance. Dry fog system shall be installed at the Coal circuit of both DRI section and power plants, which will operate as standby measures.
15. The unit shall provide adequate height of toe wall to prevent spillover of material beyond stacking area.
16. The whole stacking area of railway siding shall be concreted / stone pitched with proper gradient to channelize the runoff into storm water drains leading to treatment facilities for surface runoff.
17. Fixed type water sprinklers shall be provided at the both sides of the bay of railway siding to control fugitive emission.
18. Unit shall provide sign board at main entrance gate of siding clearly displaying Name and Address of The Depot, Name of the occupier. Type of siding, stock quantity on daily basis, validity of CTO of SPCB and Mining license.
19. The unit shall submit fly ash utilization status to the Board annually and shall comply to the provisions of revised fly ash Notification No. SO.254(E),dt. 25.01.2016 of MOEF, Govt. of India.

20. Dust suppression facilities by provision of adequate water sprinkling shall be made at the active dumping area and roads to prevent dust nuisance in the area.

21. Pellet shall be used for captive consumption in the existing Steel Plant as per CTE condition and affidavit filed by the industry

22. The industry shall comply with all the stipulations contained in the Gazette Notification of Govt. of India vide No. 155, dtd. 31.03.2012 (copy enclosed). For emission standard, the details of 'Table-C' of this order is applicable.

23. Accumulation of dust and other solid waste in the work zone and non-dumping areas inside the factory premises shall be avoided. The work zone shall be properly cleaned either manually or mechanically every day and the dust so collected shall be disposed off in the designated dump site.

24. The approach roads and all the internal roads shall be fully concreted / blacktopped. All the roads shall be cleaned periodically to avoid accumulation of dust. Adequate sprinkling facility, preferably by fixed water sprinklers shall be provided alongside all the internal roads to prevent generation of fugitive dust during vehicular movement.

25. D.G. sets should be acoustically enclosed with anti-vibration measures and equipped with A.M.F. (Auto Mains Failure Device) for auto changeover of power supply from grid to D.G. in the event of power failure. The AMF Panel should preferably be PLC (Programmable Logic Control) based. Dedicated D.G. sets of adequate capacity shall be installed to ensure adequate standby power supply to run all pollution control devices of the plant in the event of power failure.

26. The industry shall put up sign Boards at appropriate places with nomenclature of the stacks in consultation with Regional Officer of the Board. It shall install electronic display Board in front of main gate to display the monitoring data, prescribed standard for public information.

27. The ambient air quality shall confirm to the National Ambient Air Quality standard as per the notification of MoEF dated 16 Nov 2009 (Annexed).

WATER POLLUTION CONTROL

1. Specific water consumption shall be limited within 3.5m^3/MWh for coal based power plant as per MoEF & CC vide Notification dtd. 07.12.2015.
2. Under no circumstances there shall be discharge of any effluent to outside the factory premises. Water used for cooling purposes shall be fully recycled. Water used in various processes shall be suitably treated and recycled in those processes.
3. Waste water generated from raw water treatment system and back wash of filtration plant shall be properly treated and taken to guard pond and reused.
4. Blow down from WHRB boiler / AFBC boilers and all the cooling towers shall meet the following standards before it is discharged to the common monitoring basin and shall be used for dust suppression;
   a. For boiler blow down: SS-100mg/l,O&G-20mg/l,Cu(Total)-1.0mg/l,Fe(Total)-1.0mg/l
   b. For cooling tower blow down: Free available chlorine-0.5mg/l, Zn-1.0mg/l, Cr (Total)-2.0mg/l, Phosphate-2.0mg/l.
5. Slag generated from induction furnace and Ferro Alloys Furnaces shall be used for road making, land development and surplus if any shall be dumped in solid waste dump yard.

6. Cooling water generated from rolling mill and structural mill shall be completely recycled. the proponent shall adopt zero liquid discharge (ZLD) concept. Under no circumstances there shall be discharge of any effluent to outside the factory premises.
7. Wastewater generated from soft water regeneration shall be treated in settling tank and reused for dust suppression.
8. The unit shall install oil skimming system at the scale pits for removal of oil and grease if any.
9. The domestic effluent generated from colony, office and canteen shall be treated in STP and shall meet the standards prescribed by MoEF & CC vide notification G.S.R 1265(E) dtd.13th October 2017 as follows; pH - 6.5-9.0, BOD - less than 30mg/l TSS - less than 100mg/l and Fecal Coliform (FC) MPN/100ml<100.
10. Surface runoff treatment system consisting of sedimentation through settling tanks/ ponds followed by high rate clarification through clari-floculator/ tube settlers shall meet the discharge norms and shall be shall be completely recycled during dry season/ partly discharged specially during monsoon if unavoidable.
11. Dumping of solid waste shall be made at designated locations in a systematic manner with proper engineering applications by providing proper slope, angle, berms, height, toe wall, retaining wall and road network. The active dumping area shall be kept at minimum. The exhausted dump area shall be technically reclaimed by spreading a layer of soil with proper compaction and consolidation. Biological reclamation of the same shall be made by planting saplings of appropriate species. Adequate provision for watering of plants and protection of trees shall be made.
12. Domestic solid waste generated from colony, canteen, office complex etc. shall be processed through mechanically operated waste convertors with facility for recovery of useful products like oil/ gas/ carbon/ metal/ compost etc. The products to be used by the industry or sold and the inorganic residues is to be used for captive consumption/ sold / disposed in sanitary landfill developed inside the premises.
13. The industry shall have adequate space at point of time for waste disposal at least for a period of next year. Before using any new patch of land / site for solid waste dumping, the industry shall obtain prior consent to establish of the Board.
14. The unit shall strictly adhere to the provisions stipulated in the revised fly ash notification dtd. 25.01.2016.
15. Consent to operate is subject to availability of all other statutory clearances required under relevant Acts / Rules and fulfillment of required procedural formalities.

G) ADDITIONAL CONDITIONS :

1) Continuous Data transmission from the rest of the 3 nos. of CEMS, CAAQMS and CEQMS shall be ensured within one month.
2) The industry shall provide mechanized wheel washing system along with effluent treatment and recycling facilities for the raw material / product /solid waste transport vehicles at the exit point of the industry within 3 months.

3) Technological intervention shall be made to keep the SO_2 emission of coal based power plant within the prescribed standard within 3 months.

4) Industry shall install industry grade HD IP (Internet Protocol) surveillance cameras within 3 months at suitable location to view emission from all the stacks and fugitive emission of the plants having PAN, Tilt, Zoom (PTZ) with wiper facility and minimum 30X optical zoom. The camera shall support day & night operation with Infra-red cut filters, cover 400m or more distance. The camera must support latest network protocols, network security (password protection, IP address filtering, HTTPS encryption) and 3rd party applications. This camera shall comply with international standards IEC 62262, IP66 with IK10 ratings or higher quality. Real Time Un-interrupted data from this online IP camera shall be connected with the Central Server of State Pollution Control Board, Odisha through IoT/GPRS device for data streaming and/or through dedicated lease line by the industry. The industry shall make provisions at the site to store video streaming data of this camera for at least one month and facility for data migration to external devices.

5) The industry shall explore to adopt chemical free automated self -maintained electrolysis scale removal system for cooling towers and automated tube cleaning system for heat exchangers and condensers with remote access and alarm system wherever applicable for conservation of water and energy to reduce wastewater discharge and increase plant efficiency.

The occupier must comply with the conditions stipulated in section A, B, C, D, E, F & G to keep this consent order valid.

To,

The Director,
M/s. Shyam Metalics & Energy Ltd.,
Pandloi, Po – Rengali,
Dist – Sambalpur

Encl : As above

19/03/2020

MEMBER SECRETARY
STATE POLLUTION CONTROL BOARD, ODISHA

Memo No._____/Dt.

Copy forwarded to:

i) Regional Officer, State Pollution Control Board, Sambalpur
ii) District Collector , Sambalpur
iii) D.F.O, Sambalpur
iv) Director of Mines, Odisha, Bhubaneswar
v) Director Factories & Boiler, Bhubaneswar
vi) Consent Register

CHIEF ENV. ENGINEER
STATE POLLUTION CONTROL BOARD, ODISHA

General Standards for discharge of environment pollutants
PART-A:EFFLUENTS

Sl.No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Costal Areas
		(a)	(b)	(c)	(d)
1.	Colour & odour	Colourless/Odourless as far as practible	------	See 6 of Annex-1	See 6 of Annex-1
2.	Suspended Solids (mg/l)	100	600	200	For process wastewater – 100 b. For cooling water effluent 10% above total suspended matter of influent.
3.	Particular size of SS	Shall pass 850	-----	------	
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 5^0C above the receiving water temperature	-------	--------	Shall not exceed 5^0C above the receiving water temperature
7.	Oil & Grease mg/l max.	10	20	10	20
8.	Total residual chlorine	1.0	----	------	1.0
9.	Ammonical nitrogen (as N) mg/l max.	50	50	------	50
10.	Total Kajeldahl nitrogen (as NH_3) mg/1 max.	100	----	------	100
11.	Free ammonia (as NH_3) mg/1 max.	5.0	----	------	5.0
12.	Biochemical Oxygen Demand (5 days at (20^0C) mg/1 max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/1 max.	250	----	------	250
14.	Arsenic (as As) mg/1 max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg) mg/1 max.	0.01	0.01	------	0.001
16.	Lead (as pb) mg/1 max.	01.	1.0	------	2.0
17.	Cardmium (as Cd) mg/1 max.	2.0	1.0	------	2.0

18.	Hexavalent Chromium (as Cr + 6) mg/l max.	0.1	2.0	--------	1.0
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 Sc) mg/l max.	0.05	0.05	---------	0.05
23.	Nickel (as Nil) mg/l max.	3.0	3.0	---------	5.0
24.	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25.	Fluoride (as F) mg/l max.	2.0	15	---------	15
26.	Dissolved Phosphates (as P) mg/l max.	5.0	-------	---------	--------
27.	Sulphide (as S) mg/l max.	2.0	--------	---------	5.0
28.	Phennolic compounds as (C_6H_5OH) mg/l max.	1.0	5.0	---------	5.0
29.	Radioactive materials a. Alpha emitter micro curle/ml. b. Beta emitter micro curle/ml.	 10^7 10^6	 10^7 10^6	 10^8 10^7	 10^7 10^6
30.	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
31	Manganese (as Mn)	2 mg/l	2 mg/l	---------	2 mg/l
32.	Iron (Fe)	3 mg/l	3 mg/l	---------	3 mg/l
33.	Vanadium (as V)	0.2 mg/l	0.2 mg/l	---------	0.2 mg/l
34.	Nitrate Nitrogen	10 mg/l	--------	---------	20 mg/l

PART-B: NATIONAL AMBIENT AIR QUALITY STANDARDS

Sl. No.	Pollutants	Time Weighed Average	Concentrate of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO_2), µg/m³	Annual *	50	20	-Improved west and Gaeke
		24 Hours **	80	80	- Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO_2), µg/m³	Annual *	40	30	- Modified Jacob & Hochheiser (Na-Arsenite)
		24 Hours **	80	80	- Chemiluminescence
3.	Particulate Matter (size less than 10µm) or PM_{10}µg/m³	Annual *	60	60	-Gravimetric - TOEM
		24 Hours **	100	100	- Beta Attenuation
4.	Particulate Matter (size less than 2.5µm) or PM_{25} µg/m³	Annual *	40	40	-Gravimetric - TOEM
		24 Hours **	60	60	- Beta Attenuation
5.	Ozone (O_3) µg/m³	8 Hours **	100	100	- UV Photometric - Chemiluminescence
		1 Hours **	180	180	- Chemical Method
6.	Lead (Pb) µg/m³	Annual *	0.50	0.50	-AAS/ICP method after sampling on EMP 2000 or equivalent filter paper. - ED-XRF using Teflon filter
		24 Hours **	1.0	1.0	
7.	Carbon Monoxide (CO) mg/m³	8 Hours **	02	02	- Non Dispersive Infra Red (NDIR) Spectroscopy
		1 Hours **	04	04	
8.	Ammonia (NH_3) µg/m³	Annual*	100	100	-Chemiluminescence - Indophenol Blue Method
		24 Hours**	400	400	
9.	Benzene (C_6H_6) µg/m³	Annul *	05	05	-Gas Chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10.	Benzo (a) Pyrene (BaP)-Particulate phase only, ng/m³	Annual*	01	01	-Solvent extraction followed by HPLC/GC analysis
11.	Arsenic (As), ng/m³	Annual*	06	06	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12.	Nickel (Ni),ng/m³	Annual*	20	20	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

** Annual arithmetic mean of minimum I04 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 0I hourly monitored values, as applicable, shall be complied with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.