M/s Balasore Alloys Ltd

At Balgoplapur, Balasore, Odisha

Compliance Status to the conditions of Environment Clearance vide Letter No. J-11011/245/2008 IA-II (I) Dt.24.08.2008 validity extended to 24.08.2018 by MoEF & CC

Period: October 2017 To March 2018

Submitted to:

Regional office, MoEF & CC, Bhubaneswar

Specific Conditions & Status

Sl.No.	Conditions	Status
I	**Continuous monitoring facilities for all the stacks along with sufficient air pollution control equipments viz. fume extraction system with bag filters, ID fan and stack of adequate height to submerged arc furnace shall be provided to control emissions below 100 mg/Nm^3. The Orissa Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.**	Gas Cleaning Plant (GCP) with spark arrester, forced draft cooler, bag filter devices) are in place for the existing five furnaces to control the emission level below 100 mg/Nm^3 . Monitoring of stack gas emission is going on regular basis engaging third party as well as in-house team and reports are submitted to regulatory authorities. The monitoring of stack emission for the period October 2017 to March 2018 is given as **Annexture-1.** Continuous monitoring system has been installed in all the five stacks.the stack of furnace – I. Photos of the same are attached as **Photo- 1**.
II	**Fume extraction system with bag filters shall be provided to control the gaseous emission from submerged arc furnaces and shall be discharged into the atmosphere through stacks of adequate height as per CPCB guidelines. The outlet dust emission shall not exceed 100mg/Nm^3. Dust suppression system like water spraying shall be provided at unloading and raw material handling areas to control fugitive dust emissions to meet the OPCB norms. Water spraying shall also be done to prevent the dust emanation due to vehicular movement.**	For the existing units Fume extraction system with bag filters have been provided. The outlet emission is well within the norms. Water sprinkling on the roads as well as R.M Yard is continuously done to arrest the fugitive emissions. Dry Fog dust suppression arrangements are done at the raw-material feeding & transfer points. Regular water spraying facility has been provided throughout the plant and haul road to suppress the fugitive emission due to vehicular movement. Regular monitoring of Ambient air quality is going on at four different locations inside the plant premises and Two Locations in the Buffer Zone. Report for the period of October 2017 to March 2018 is given as **Annexure-2 & 3** respectively.

III	**Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the ministry and regularly monitored. Guidelines/Code of Practice issued by the CPCB shall be followed.**	Inside the plant premises mobile water sprinkling, fixed water sprinkling, dry fog system is being operated for dust suppression. Conveyer belt are fully covered to reduce the secondary fugitive emission. Dust extraction system at tapping floor has been installed in five furnaces to reduce secondary fugitive emission. Photos of mobile water sprinkling, fixed water sprinkling, dry fog & covered conveyor belt are given as **Photo-2,3,4 & 5** respectively.
IV	**Vehicular pollution due to transportation of raw material and finished product shall be controlled proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.**	Mobile water sprinkling system is provided at RM handling area, finish product yard and inside the plant premises. All the raw material procured are transported by covering the vehicle with tarpaulin & finished product has been transported after loading in HDPE bags to control fugitive dust emission. The haul road use for transportation inside plant premise completely cemented. Photos Showing Sprinkling of water by mobile and fixed sprinkler is given as **Photo -2 & 3.** Photos showing transportation of raw materials and finished products are given as **Photo – 6 & 7** respectively.
V	**Total ground water shall not exceed 355 m^3/day. Cooling under blow down shall be treated and waste water shall be used for dust suppression, greenbelt development & other plant related activities within the plant premises. "Zero" discharge shall be adopted.**	Water being withdrawn through bore wells are being used for both domestic and Industrial purpose. All the process cooling water and cooling tower blow down water are re-used for plantation and dust suppression. Waste water from Jigging plant is being circulated and no water is discharged outside. The waste water generating from canteen & guest house is treated in the STP of 50KL capacity and the

		treated water is being reused in plantation. Other Domestic waste water is discharged to septic tank followed by Soak Pit. Thus ensuring zero discharge of water from Plant Premises. Photograph of STP is given as **photo- 8**.
VI	**Prior permission for the drawl of 355 m^3/day ground water from the Central State Ground Water Board/ Ground Water Authority (SGWB/CGWA) shall be obtained.**	Permission from CGWA for withdrawal of ground water of 1340 M^3/Day has been obtained vide letter No. 21-4(41)/SER/CGWA2008-363 Dt.16.02.2017 and is valid till 15.02.2020. Copy of same attached as **Annexure-4.**
VII	**Proper handling, storage, utilization and disposal of all the solid / hazardous wastes shall be submitted to the Ministry's Regional Office at BBSR, OPCB & CPCB.**	Solid waste as Ferro-chrome slag is processed for recovery of entrapped chrome metal through MRP and stored at earmarked area inside plant premises, sold in local area for low land filling and construction activities. Hazardous wastes viz Used Oil and Waste Oil are being generated during operation, which are stored at earmarked place with adequate protection and disposed authorized party. The flue dust generated from the GCP is reused in briquette making. We have obtained authorization for handling, storage and disposal of hazardous waste valid up to 31.03.2019. IND-IV-HW-293/14630. **Copy of same given in Annexure-5.** The annual return for hazardous waste handling has been submitted to OSPCB in Form-IV. Copy of same attached as **Annexure-6**. Photos of Hazardous yard storage area and handling are given as **Photo-9**.
VIII	**Chromate slag shall be used for road making**	Fe-Cr recovered from the Chromate slag

	only after passing through Toxic Chemical Leach ability Potential (TCLP) test. Otherwise, Ferro Chrome shall be recovered from the slag & output waste shall be disposed in secured landfill as per CPCB guidelines.	through our Metal Recovery Plant and the ultimate waste i.e. slag tailings in form of chips & fines are reused for road making, construction of walls etc after passing through TCLP. Copy of TCLP test report given in **Annexure-7.**
IX	**Product fines, fume dust shall not be dumped anywhere else but reused in the process. SAF slag shall not be dumped but reused as per the alternate action plan submitted. Slag produced in Ferro Manganese (Fe-Mn) production shall be used in manufacture of Silico- Manganese (Mn-Si). Dust from bag filters shall be collected in silo by pneumatic conveying and reused for briquetting and shall be charged to furnaces clay with the raw material. All the other solid waste shall be spilled out and good housekeeping practices shall be adopted. Used oil shall be sold to recyclers/reprocesses.**	Product fines are sold as finish product. Pure Slag after passing through MRP is kept at earmarked area and sold for low land filling and road construction at local area. Ferro-silicon and Ferro-manganese are not generating. Flue dust is being collected through pneumatic/mechanical conveying system from bag filters and collected in silo which is reused for briquette making as raw material. Good Housekeeping practice is being adopted. Used oil generated is kept in earmarked area and sold to authorized recyclers.
X	**Green belt shall be developed in 33% area within and around the Plant premises as per the CPCB guidelines in consultation with DFO.**	Total 15.68 acre of area (34.7 %) has been covered with plantation inside plant premises at several areas viz. boundary, near colony area, Guest house etc developing in our own captive nursery (capacity of aprrox.1.0 lakh). The year wise details of plantation is given as **Annexure-8** & photographs of plantation are given as **photo - 10**.
XI	**All the recommendations made in the charter on corporate responsibility for Environment protection for the Ferro Chrome units shall be strictly implemented.**	We have undertaken activities like Free distribution of 25000 nos of sapling to nearby villagers towards greenery development, Avenue plantation, participation in cleaning of Chandipur sea beach under guidance of regional office OSPCB, Balasore.. Special attention is being given for protection of environment in CSR activities. The activities undertaken

		during CSR activities are as follows ▪ **Tribal Development** ▪ **Women's Empowerment** ▪ **Environment Conservation & Tourism** ▪ **Basic Infrastructure** ▪ **Youth Development** ▪ **Educational Development** • **Health Awareness & Promotion** ▪ **Assistance at the time of Natural Calamity.**
B. General Conditions		
I	**The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OPCB) and the State Government.**	Company abides by the stipulated conditions of OSPCB.
II	**No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.**	Any further expansion will be done with prior approval of Ministry of Environment and Forest & CC.
III	**At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum concentration of SPM, SO_2 and NOx are anticipated in consultation with the OPCB. Data on ambient air quality and stack emissions should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the OPCB / CPCB**	Ambient air quality has been monitored at six different location in the downward wind direction for the parameters viz PM_{10},$PM_{2.5}$, SO_2, NO_2 and data being submitted to OSPCB and MOEFF & CC. Monitoring report is given in **Annexure 1 & 2**.

	once in six months.	
IV	**In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fume and dust extraction system with bag filters shall be provided at the transfer and discharge points to control fugitive emissions. Further, specific measures like water sprinkling around the raw material storage areas and asphalting or concreting of the roads shall be done to control fugitive emissions.**	Two nos. of Mobile water tankers are used for water sprinkling on roads throughout year with 4KL water carrying capacity each. Dry fog dust suppression system has been installed at underground bunkers and in respective conveyors of the Furnaces to avoid fugitive emission during loading, unloading & feeding of raw materials. Photographs of mobile sprinkler, fixed sprinkler & dry fog system are given as **Photo 2,3 & 4**. Photographs of concrete haul road are given in **Photo 11**.
V	**Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.**	There is no generation of waste water form industrial activities. However the waste water generating from canteen & guest house is treated in the STP of 50KL capacity and the treated water is being reused in plantation. Other Domestic waste water is discharged to septic tank followed by Soak Pit.
VI	**The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.**	Two artificial recharging pit has been constructed inside the plant premises as per recommendation in the rain water harvesting study report. Photos of the Rain water harvesting recharge pits are shown as **Photo- 12.**
VII	**The overall noise levels in and around the plant area shall be kept well within the standards (85dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and**	All the machineries are well covered; regular maintenance is going on to reduce the noise generation. PPEs are provided to the workmen working at noise prone area. Regular monitoring of Noise level is going on and accordingly measure has been taken for decrease noise level at source. Noise level monitoring report given in

	70 dBA (nighttime).	**Annexure-9.**
VIII	**Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.**	Periodical Health check of each Employee is being done by specialist doctor on regular basis as per Factories Act. Details of IME/PME given in **Annexure-10**.
IX	**The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.**	All the environmental protection measures have been taken up as per recommendations EIA/EMP report. Company also undertaken socioeconomic development works under CSR activity as per company rule.
X	**As proposed, Rs. 3.00 Crores and Rs. 5.0 Lakhs/annum earmarked towards capital cost and recurring cost/annum for the environment pollution control measures shall be judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.**	Details of expenditure incurred towards environmental control measures given in **Annexure-11**.
XI	**The Regional Office of this Ministry at Bhubaneswar / CPCB / OPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.**	Report on status of compliance to the conditions stipulated in the EC has been submitted to MoEF & CC, BBSR on six monthly basis. Copy of last submissions given in **Annexure- 12.**
XII	**The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance**	Information regarding issuance of environmental Clearance was published in Odia news paper "Samaj and Ajikali". Copy

	letter are available with the OPCB and may also be seen at Website of the Ministry of Environment and Forests at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office at Bhubaneswar.	of the same is attached as **Annexure-13**.
XIII	**Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.**	We will abide by the said condition.

CREP Points

CREP POINTS	STATUS
Integrated Iron and Steel Plant	
A.- Coke Oven (by- product type)	Not applicable
B.- Sintering Plant	Not applicable
C.- Blast Furnace	Not applicable
D.- Steel Making Shop- Basic Oxygen Furnace	Not applicable
E.- Rolling Mills	Not applicable
F.- Arc Furnaces	
Particulate matter (mg/Nm^3)= 150	All the five furnaces are equipped with pollution control device (gas cleaning plant) and emission level is less than 150 mg/M^3.
G.- Induction Furnaces	Not applicable
H.- Cupola Foundry	Not applicable
1.- Calcination Plant/Lime Kiln/Dolomite Kiln	Not applicable
J.- Refractory Unit	Not applicable
Emission Standards	
Particulate matter- 150 (mg/Nm^3)	
1. The height of the each process stack shall be a minimum of 30 metres or as per the formula $H = 14 (Q)^{0.3}$ (whichever is more), where "H" is the height of stack in metre; and "Q" is the maximum quantity of S02 in kg/hr expected to be emitted through the stack at rated capacity of the plant(s) and calculated as per the norms of gaseous emission.	Heights of our five stacks are 40 mtr.
2. The plants having separate stack for gaseous emission for the scrubbing unit, the height of this stack shall be equal to main stack of the plant or 30 metres, whichever is higher.	Not applicable

3. It is essential that stack constructed over the cupola beyond the charging door and emissions shall be directed through the stack which should be at least six times the diameter of cupola.	Not applicable
4. In respect of Arc Furnaces and Induction Furnaces provision shall be made for collecting the fumes before discharging the emissions through the stack.	Furnace flue gas passed through bag filter of gas cleaning plant before emission through stack. Fumes are collected and clean gas is emitted through stack (Particulate matter below the limit prescribed by state pollution control board)
5. Foundries shall install scrubber, followed by a stack of height atleast six times the diameter of the Cupola beyond the charging door.	Not applicable
6. Recovery type converters shall be installed in new plants or expansion projects.	Not applicable
Storm water	
(i) Storm water shall not be allowed to mix with effluent, scrubber water and/or floor washings.	Separate storm water drain is constructed around the plant.
(ii) Storm water shall be channelized through separate drains as per natural gradient, passing through High Density Polyethylene (HDPE) lined pits, each having holding capacity of 10 minutes (hourly average) of rainfall.	Strom water drain is constructed separately as per natural gradient and pits lined with HDPE are provided for discharge of water.

Annexure-1

Stack Gas Monitoring Report (October'17 to March '18)

Month Wise PM LEVEL(mg/Nm^3) in Stacks attached to GCP					
Month	**Furnace-I**	**Furnace-II**	**Furnace-III**	**Furnace-IV**	**Furnace-V**
PCB Norms	**100 mg/Nm^3**				
Oct-17	55.25	67.96	89.23	48.71	..
Nov-17	61.29	64.15	82.16	59.80	62.68
Dec-17	67.88	66.95	80.23	63.50	72.00
Jan-18	63.43	62.24	75.32	67.74	69.01
Feb-18	60.44	64.3	77.6	62.34	67.58
Mar-18	58.86	68.4	80.85	65.72	...

Annexure-2

Ambient air quality Monitoring Report (October'17 to march'18)- Core Zone

Month of Sampling	**Month**	**Oct-17**				**Nov-17**				**Dec-17**			
	Parameters	**SO_2 (µg/M^3)**	**NO_2 (µg/M^3)**	**PM10 (µg/M^3)**	**PM2.5 (µg/M^3)**	**SO_2 (µg/M^3)**	**NO_2 (µg/M^3)**	**PM10 (µg/M^3)**	**PM2.5 (µg/M^3)**	**SO_2 (µg/M^3)**	**NO_2 (µg/M^3)**	**PM10 (µg/M^3)**	**PM2.5 (µg/M^3)**
Unit		**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**
Monitoring Location													
Near Temple		11.4	16.1	47.20	33.48	10.7	17.4	43.30	26.21	10.4	19.3	46	29.41
Plant Rest House		12.2	17.6	51.3	34.19	9.6	18.2	46.42	29.41	12.3	21.4	47	30.18
Near Material gate		15.7	25.7	63.5	37.5	13.8	23.8	48.26	33.76	12.5	24.5	46	34.34
Weigh Bridge-1 (Near Plant Main Gate)		12.5	24.1	63.3	37.66	11.1	22.6	47.42	30.18	11.4	24.8	51	34.19
Briquette Plant Main Office		14	21.6	58.80	38.47	13.1	20.7	50.00	33.34	12.4	25.4	54	37.66
MRP Metal Sorting yard		17.5	25.7	61.2	41.85	15.1	23.8	45.84	29.17	14.1	22.9	46	30.31
NAAQS		**80**	**80**	**100**	**60**	**80**	**80**	**100**	**60**	**80**	**80**	**100**	**60**

Month of Sampling	Month	Jan-18				Feb-18				Mar-18			
	Parameters	SO_2 (µg/M^3)	NO_2 (µg/M^3)	PM10 (µg/M^3)	PM2.5 (µg/M^3)	SO_2 (µg/M^3)	NO_2 (µg/M^3)	PM10 (µg/M^3)	PM2.5 (µg/M^3)	SO_2 (µg/M^3)	NO_2 (µg/M^3)	PM10 (µg/M^3)	PM2.5 (µg/M^3)
Unit		**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**	**(µg/M^3)**
Monitoring Location													
Near Temple		13.3	21.3	46	29.54	14.2	23.2	51	34.19	15.6	24.4	50	30.18
Plant Rest House		11.1	23.5	48	30.31	12.3	22.2	47	30.18	13.3	20.5	46	27.16
Near Material gate		14.4	26.3	50	34.1	16.3	27.4	54	37.66	18.6	30.4	56	39.31
Weigh Bridge-1 (Near Plant Main Gate)		13.5	24.4	50	33.62	12.6	28.7	48	31.26	14.2	29.5	55	37.66
Briquette Plant Main Office		15.6	26.1	54	37.5	16.3	30.8	51	38.47	17.3	32.4	56	42.38
MRP Metal Sorting yard		17.5	23.3	46	29.17	15.5	26.5	44	34.34	19.3	34.3	47	33.62
NAAQS		**80**	**80**	**100**	**60**	**80**	**80**	**100**	**60**	**80**	**80**	**100**	**60**

Annexure-3

Ambient air quality Monitoring Report (October'17 to march'18)– **Buffer** Zone

Month of Sampling	Month	Oct-17				Nov-17				Dec-17			
	Parameters	SO_2 (µg/M^3)	NO_2 (µg/M^3)	PM10 (µg/M^3)	PM2.5 (µg/M^3)	SO_2 (µg/M^3)	NO_2 (µg/M^3)	PM10 (µg/M^3)	PM2.5 (µg/M^3)	SO_2 (µg/M^3)	NO_2 (µg/M^3)	PM10 (µg/M^3)	PM2.5 (µg/M^3)
Unit		(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)
Monitoring Location													
Nuaparhi Village (Up Wind)		9.2	17.3	54.6	34.64	10.5	18.6	42.3	26.21	9.6	20.1	42	29.29
Remuna (Down Wind)		13.2	14.1	50.4	28.41	12.6	16.1	44.26	30.7	14.3	25.2	44	31.26
NAAQS		**80**	**80**	**100**	**60**	**80**	**80**	**100**	**60**	**80**	**80**	**100**	**60**
Month of Sampling	**Month**	**Jan-18**				**Feb-18**				**Mar-18**			
	Parameters	SO_2 (µg/M^3)	NO_2 (µg/M^3)	PM10 (µg/M^3)	PM2.5 (µg/M^3)	SO_2 (µg/M^3)	NO_2 (µg/M^3)	PM10 (µg/M^3)	PM2.5 (µg/M^3)	SO_2 (µg/M^3)	NO_2 (µg/M^3)	PM10 (µg/M^3)	PM2.5 (µg/M^3)
Unit		(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)	(µg/M^3)
Monitoring Location													
Nuaparhi Village (Up Wind)		10.4	20.6	42	25.43	11.6	22.5	39	26.21	12.5	23.4	38	29.54
Remuna (Down Wind)		12.5	24.2	42	25.43	10.3	19.4	43	24.33	9.3	17.4	42	26.21
NAAQS		**80**	**80**	**100**	**60**	**80**	**80**	**100**	**60**	**80**	**80**	**100**	**60**

Annexure-4

Member Secretary

Government of India
Central Ground Water Authority
Ministry of Water Resources,
River Development & Ganga Rejuvenation

CGWA/ND/Proj/2016-204-R

No.21-4(41)/ SER /CGWA /2016- 363 Dated:- 10 FEB 2017

To

M/s Balasore Alloys Ltd.,
Ferro Alloys Plant, At/PO Balgopalpur,
Rasulpur, District Balasore-756022, Odisha

Sub: - Renewal of NOC for ground water withdrawal to M/s Balasore Alloys Ltd., in respect of their existing Ferro Chrome Plant located at Village Balgopalpur, Block Remuna, Tehsil Nilgiri, District Balasore, Odisha – reg.

Refer to your application dated 22.11.2016 on the above cited subject. Based on recommendations of Regional Director, CGWB, South Eastern Region, Bhubaneswar vide their office order No. 5-22/SER/CGWA/2016-17-1192 dated 15.12.2016 and further deliberations on the subject, the renewal of NOC issued vide this office letter of even no. dated 30.09.2014 is hereby accorded to M/s Balasore Alloys Ltd., in respect of their existing Ferro Chrome Plant located at Village Balgopalpur, Block Remuna, Tehsil Nilgiri, District Balasore, Odisha. The renewal is however subject to the following conditions:-

1. The firm may continue to abstract 1340 m^3/day (instead of earlier permitted quantity of 1377 m^3/day) of ground water (not exceeding 4,89,100 m^3/year) through existing five (5) borewells only. No additions, ground water abstraction structures to be constructed for this purpose without prior approval of the CGWA.
2. All the wells to remain fitted with water meter and monitoring of ground water abstraction to be continued on regular basis at least once in a month. The firm will continue to provide data of ground water extraction on regular basis to the Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar. The ground water quality to be monitored twice in a year during pre monsoon and post monsoon periods both in core and buffer zone.
3. M/s Balasore Alloys Ltd., shall continue to implement ground water recharge measures to the tune of 67,884 m^3/year for augmenting the ground water resources in consultation with the Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar. In addition the firm shall adopt two (2) nos. of villages for Water Security Plan in District Balasore, Odisha. The necessary guidelines for the Water Security Plan is available on website of Ministry of Water Resources, R.D & GR (www.mowr.gov.in). Both, the Demand

West Block - 2, Wing - 3, Sector - 1, R.K. Puram, New Delhi - 110066
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CONSERVE WATER - SAVE LIFE

Annexure-5

BY SPEED POST

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STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]
Paribesh Bhawan, A/118, Nilakantha Nagar, Unit – VIII
Bhubaneswar – 751 012, INDIA

FORM 2
[See rules 5(4)]

GRANT OF AUTHORIZATION FOR GENERATION, HANDLING, COLLECTION, STORAGE, AND DISPOSAL OF HAZARDOUS WASTE

(This Authorization order supersedes the previous authorization order no. 9711, dtd. 12-06-2015)

1. Number of authorization **IND-IV-HW-293/**14630 and date of issue 03-09 **/2015.**
2. **M/S BALASORE ALLOYS LTD.**, is hereby granted an authorization to operate a facility for generation, handling, collection, storage and disposal of hazardous waste on the premises situated **AT/PO - BALAGOPALPUR, DIST- BALASORE, ODISHA -756020.**
3. The authorization shall be in force for a period up to **31.03.2019.**
4. The authorization is subject to the conditions stated below and the such conditions as may be specified in the Rules for the time being in force under the Environment (Protection) Act, 1986.
5. The applicant shall handle hazardous waste as specified below:

Sl. No.	Stream	Schedule	Waste Description	Quantity /A	Disposal
1	2	3	4	5	6
1.	5.1	1	Used Oil	15.54 KL	Storage in impervious pits / containers under covered shed followed by sale to Authorized Recycler / Re-processor
2.	5.2	1	Waste containing oil	20 Kg	Storage in impervious pits / containers under covered shed followed by final disposal in Authorized HW incinerator / Common Hazardous Waste Treatment Storage Disposal Facility (CHWTSDF), Jajpur
3.	3.2/3.3	1	Oily sludge	-	Storage in impervious pits / containers under covered shed followed by sale to Authorized recyclers of waste oil / disposal in Hazardous Waste incinerator / CHWTSDF
4.	34.1	I	Flue gas cleaning Residues	1450 T	Storage in impervious platform under covered shed followed by utilization for manufacturing of briquettes for use as raw material in the furnace inside its factory premises

TERMS AND CONDITIONS OF AUTHORIZATION

GENERAL CONDITIONS

1. This authorization does not permit you to either receive and process or generate hazardous waste in case validity of Consent to Operate of your unit ceases. However you can carry out handling, storage, treatment, transport and disposal of hazardous waste generated previously during such period to avoid accumulation of hazardous waste.
2. The authorization shall comply with the provisions of the Environment (Protection) Act, 1986, and the Rules made there under.
3. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.

Annexure-6

BALASORE ALLOYS LIMITED

CIN-L27101OR1984PLC001354

Ref. No. : BALB/ENV/HW/1365
Date : 29th June' 2017

To,

The Sr. Environment Engineer
State Pollution Control Board, Odisha
Paribesh Bhawan, A/118, Nilkantha Nagar
Unit-VIII
Bhubaneswar-751012 [Odisha]

Sub: Submission of Annual Return in Form-4 under Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016.

Sir,

We are hereby submitting the annual return under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 in the Form- 4 for the Year 2016-2017.

Kindly acknowledge the same

Thanking You.

Yours truly,
For **BALASORE ALLOYS LIMITED**

D.K.Nath
Head (Operations)

Encl : Form- 4
CC : Regional Officer, SPCB, Sahadevkhunta, Balasore

Annexure- 7

TCLP Analysis Report of Slag Tailings

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

[illegible] PATIAL, BHUBANESWAR-752101, ODISHA

TEST REPORT

Test Report No.: KLPL-TR/03/18/S –8917
Issue date: 05.04.2018

Name and address of the Customer: M/s Balasore Alloys Limited,
Balgopalpur, Balasore, Odisha – 756020
Customer's reference: 4800007718V0 Dtd-12.07.2017
Date of Sample Receipt: 29.03.2018 **Testing Dt.:** 29.03.2018 **Test completion Dt.:** 04.04.2018
Sample Description: Slag **No. of Samples:** 250 gm x 1
Sample Condition: Sealed Poly Pack
Sampling Method used, if any:

Parameters	Cr (VI)	Cr (III)	Cu	Total Cr	Zn	Pb	Ni	Cd
Results (mg/l)	1.85	0.17	< 0.02	2.9	0.57	0.51	0.49	< 0.005
Regulatory levels (mg/l) as per CPCB	5.0	--	--	--	--	5	--	1.0
Test Method	TCLP Criteria of hazarduus waste characterisation procedure							
Remarks	Nil							
Any unusual feature observed during determination	Nil							

************* End of Test Report *************

Authorized Signatory
Kalyani Laboratories Private Limited

Page 1 of 1

KLPL- 23152A

Annexure-8

Year Wise plantation details

Year	2014-15	2015-16	2016-17	2017-18
Plantation Cumulative (Nos.)	12289	24594	31937	47,962

Annexure-9

M/s Balasore Alloys Ltd
Noise Monitoring Report (Oct 2017 to March 2018)

Sampling Location	Oct-17		Nov-17		Dec-17		Jan-18		Feb-18		Mar-18	
	Day Time	Night time	Day Time	Night time	Day Time	Night time	Day Time	Night time	Day Time	Night time	Day Time	Night time
	IndB(A)LEQ		IndB(A)LEQ		IndB(A)LEQ		IndB(A)LEQ		IndB(A)LEQ		IndB(A)LEQ	
Pump House	72.2	63.7	71.6	62.8	70.8	62.1	71.5	63.4	72.1	63.9	72.8	64.8
Compressor Room	70.3	66.4	69.1	65.6	68.4	64.9	69.8	65.8	70.8	66.7	71.6	67.6
GCP Area	67.1	64.5	66.4	63.4	65.7	62.7	66.5	63.6	67.4	64.3	68.5	65.1
MRP Area	68.4	61.5	67.5	60.3	66.9	59.7	67.7	60.8	68.8	61.9	69.7	62.6
Sales Yard	71.6	63.2	70.5	62.5	69.9	61.8	70.4	62.9	71.2	63.8	72.0	64.3
Briquette Plant Drier Area	69.1	60.2	68.2	60.2	67.6	59.1	68.8	60.4	69.7	61.2	70.5	61.9
Briquette Plant Main Gate	73.4	66.8	72.2	65.6	71.4	65	72.3	66.0	73.0	67.0	73.7	67.8
Main Gate Plant	71.8	67.9	71.1	67.1	70.1	66.3	70.8	66.9	71.8	67.8	72.5	68.8
Material Gate	70.8	65.9	70.1	65.3	69.2	64.2	69.8	64.8	70.2	65.3	71.2	64.6
Balgopalpur	49.1	42.4	48.5	41.6	47.6	40.8	49.8	42.5	50.3	43.2	51.5	44.1
Nuaparhi	47.2	37.6	46.7	36.8	46.0	36.1	47.8	37.6	48.8	38.8	49.7	40.2

Standard as Per Noise Rule 2000 (Ind. Area)	**75**	**70**
Standard as Per Noise Rule 2000 (Res. Area)	**55**	**45**

Annexure-10

Details of IME & PME

SL.NO	CATEGORY	TOTAL STRENGTH	IME Executed	PME Executed
1	REGULAR EMP., CASUAL EMP., CONSULTANT & I. AUDITORS	652	59	630
2	CONTRACT WORKER	1251	112	1055

Annexure-11

Details of the expenditure incurred towards Environment Management

Sl. No.	Activity	Expenditure in INR (Approx.)	
		April 2017 to September 2017	October 2017 to March 2018
1	Equipment for online monitor	18,79,800/-	40,42,600/-
2	Environmental Monitoring	5,70,579/-	5,07,096/-
3	Water Tax Payment	11,02,343/-	12,25,224/-
4	Dust suppression (GCP , Mobile sprinkler)	3,32,30,421/-	2,94,46,000/-
5	Modification of dust suppression system	.....	1,65,33,927/-
5	Plantation	8,43,560/-	3,69,500/-
Total		3,63,00,603/-	5,21,24,347/-

Annexure-12

BALASORE ALLOYS LIMITED

CIN-L27101OR1984PLC001384

BALB/ENV/MoEF&CC/1097 Dated: 29.05.2017

To

The Director (S),
Ministry of Environment & Forests,
Eastern Regional office,
A/3, Chandrasekharpur,
BHUBANESWAR – 751023

Sub: Six-monthly compliance report of conditions of Environment Clearance with respect to M/s- Balasore Alloys Ltd for the period of from October-2016 – March 2017.

Ref: Environment Clearance No.- J-11011/245/2008-IA(I), dated 03-03-2016

Dear Sir,

Enclosed please find herewith the Six-Monthly Compliance reports of the above referred letter regarding Environment Clearance along with mentioned conditions for the period from October 2016 – March 2017 with respect to our Balgopalpur ferro chrome Plant of M/s Balasore Alloys Ltd for your kind perusal.

Thanking you.

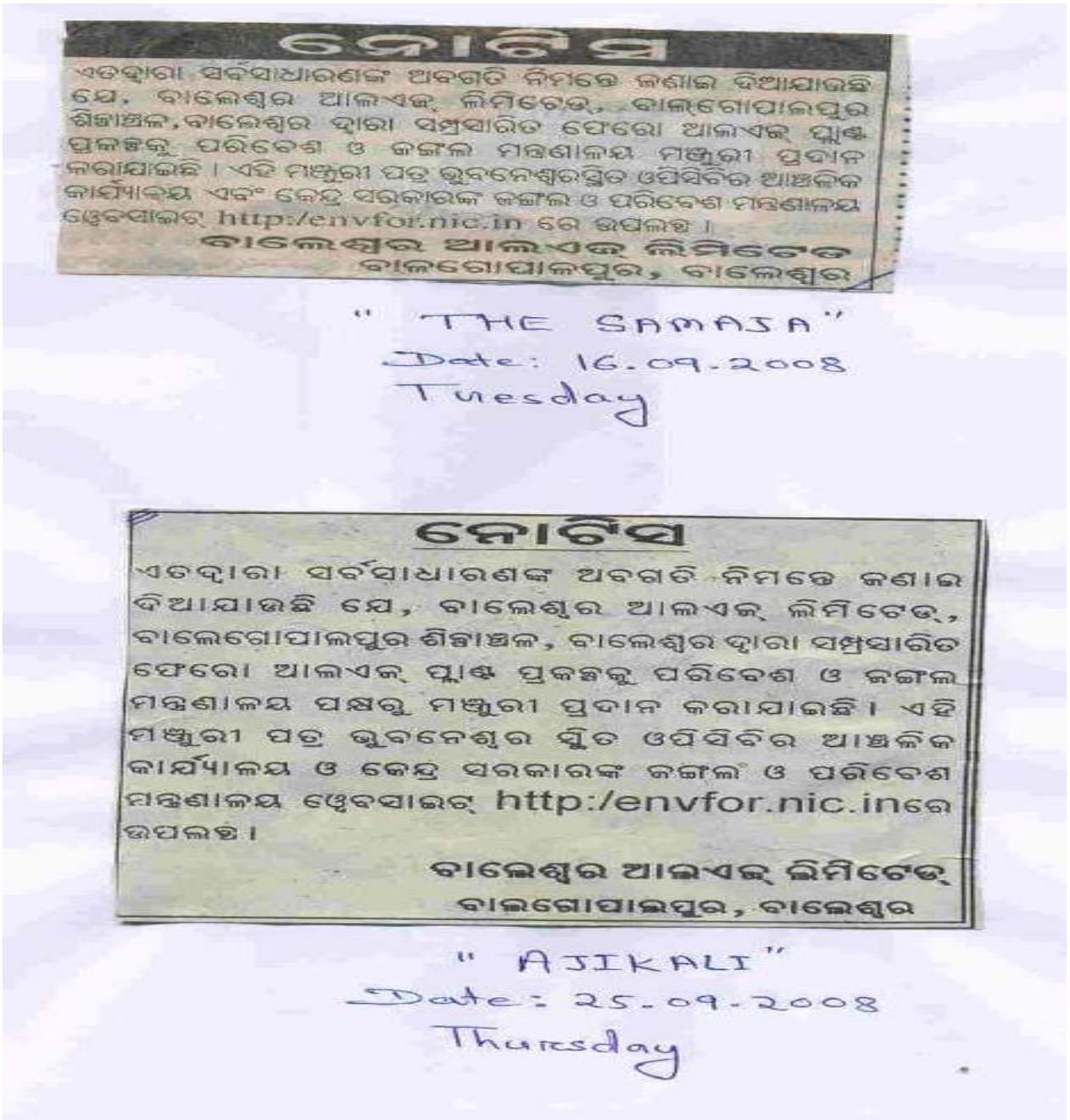
Yours faithfully,
For M/s Balasore Alloys Ltd.

Dr. Swarup Panda
Vice President-Corporate Affairs

Encl: As above

GOVT OF INDIA
E'S'I & CC, Eastern R.O.
Bhubaneswar-751023
30 MAY 2017
RECEIVED

Annexure-13



ନୋଟିସ

ଏତଦ୍ଦ୍ୱାରା ସର୍ବସାଧାରଣଙ୍କ ଅବଗତି ନିମନ୍ତେ ଜଣାଇ ଦିଆଯାଉଛି ଯେ, ବାଲେଶ୍ୱର ଆଲଏଜ୍ ଲିମିଟେଡ୍, ବାଲଗୋପାଳପୁର ଶିଳ୍ପାଞ୍ଚଳ,ବାଲେଶ୍ୱର ଦ୍ୱାରା ସମ୍ପ୍ରସାରିତ ଫେରୋ ଆଲଏଜ୍ ପ୍ଲାଣ୍ଟ ପ୍ରକଳ୍ପକୁ ପରିବେଶ ଓ ଜଙ୍ଗଲ ମନ୍ତ୍ରଣାଳୟ ମଞ୍ଜୁରୀ ପ୍ରଦାନ କରାଯାଇଛି । ଏହି ମଞ୍ଜୁରୀ ପତ୍ର ଭୁବନେଶ୍ୱରସ୍ଥିତ ଓପିସିବିର ଆଞ୍ଚଳିକ କାର୍ଯ୍ୟାଳୟ ଏବଂ କେନ୍ଦ୍ର ସରକାରଙ୍କ ଜଙ୍ଗଲ ଓ ପରିବେଶ ମନ୍ତ୍ରଣାଳୟ ଓ୍ୱେବସାଇଟ୍ http:/envfor.nic.in ରେ ଉପଲବ୍ଧ ।

ବାଲେଶ୍ୱର ଆଲଏଜ ଲିମିଟେଡ
ବାଳଗୋପାଳପୁର, ବାଲେଶ୍ୱର

" THE SAMAJA "
Date: 16.07.2008
Tuesday

ନୋଟିସ

ଏତଦ୍ଦ୍ୱାରା ସର୍ବସାଧାରଣଙ୍କ ଅବଗତି ନିମନ୍ତେ ଜଣାଇ ଦିଆଯାଉଛି ଯେ, ବାଲେଶ୍ୱର ଆଲଏଜ୍ ଲିମିଟେଡ୍, ବାଲେଗୋପାଳପୁର ଶିଳ୍ପାଞ୍ଚଳ, ବାଲେଶ୍ୱର ଦ୍ୱାରା ସମ୍ପ୍ରସାରିତ ଫେରୋ ଆଲଏଜ୍ ପ୍ଲାଣ୍ଟ ପ୍ରକଳ୍ପକୁ ପରିବେଶ ଓ ଜଙ୍ଗଲ ମନ୍ତ୍ରଣାଳୟ ପକ୍ଷରୁ ମଞ୍ଜୁରୀ ପ୍ରଦାନ କରାଯାଇଛି । ଏହି ମଞ୍ଜୁରୀ ପତ୍ର ଭୁବନେଶ୍ୱର ସ୍ଥିତ ଓପିସିବିର ଆଞ୍ଚଳିକ କାର୍ଯ୍ୟାଳୟ ଓ କେନ୍ଦ୍ର ସରକାରଙ୍କ ଜଙ୍ଗଲ ଓ ପରିବେଶ ମନ୍ତ୍ରଣାଳୟ ୱେବସାଇଟ୍ http:/envfor.nic.inରେ ଉପଲବ୍ଧ ।

ବାଲେଶ୍ୱର ଆଲଏଜ୍ ଲିମିଟେଡ୍
ବାଳଗୋପାଳପୁର, ବାଲେଶ୍ୱର

" AJIKALI "
Date: 25.07.2008
Thursday

KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT

Test Report No.: KLPL/TR/03/18/S-8913
Issue Date: 05.04.2018
Name and address of the Customer: M/s Balasore Alloys Limited, Balgopalpur, Balasore, Odisha – 756020.
Customer's reference: 4800005810V0 Dtd-17.06.2016
Date of Sample Receipt: 29.03.2018 **Testing Dt.:** 29.03.2018 **Test completion Dt:** 04.04.2018
Sample Description: Drinking Water **Place of collection:** Near Temple

Sample Condition: Sealed plastic and sterilized glass Bottle **No. of Samples:** 01
Sampling Method used, if any: KLPL/SOP/Chem-28

Sl. No	Parameters	Results	Units	Acceptable Limit (IS: 10500:2012)	Test Methods
ORGANOLEPTIC & PHYSICAL PARAMETERS					
1.	Colour	< 1.0	Hazen, Max	5	IS 3025 (Part 4):1983 RA 2012
2.	Odour	Agreeable	--	Agreeable	IS 3025 (Part 5):1983 RA 2012
3.	pH value	7.0	--	6.5-8.5	IS 3025 (Part 11):1983 RA 2012
4.	Taste	Agreeable	--	Agreeable	IS 3025 (Parts 8):1984 RA 2006
5.	Turbidity	0.5	NTU, Max	1.0	IS 3025 (Part 10):1984 RA 2006
6.	Total dissolved solids	290	mg/l, Max	500	IS 3025 (Part 16):1984 RA 2006
7.	Total Suspended Solid	8	mg/l	--	APHA-22nd Edition (2540 D)
GENERAL PARAMETERS					
8.	Aluminium (as Al)	< 0.02	mg/l, Max	0.03	IS 3025 (Part 55):2003 RA 2009
9.	Ammonia as N	< 0.3	mg/l, Max	0.50	IS 3025 (Part 34):1988 RA 2009
10.	Anionic detergents (as MBAS)	< 0.1	mg/l, Max	0.20	Annex K of IS 13428:2005
11.	Barium (as Ba),	< 0.2	mg/l, Max	0.70	Annex F of IS 13428:2005 or IS 15302:2003 RA 2009
12.	Boron (as B)	< 0.1	mg/l, Max	0.50	IS 3025 (Part 57):2005 RA 2010
13.	Calcium (as Ca)	22.4	mg/l, Max	75	IS 3025 (Part 40):1991 RA 2009
14.	Chloride (as Cl)	22.7	mg/l, Max	250	IS 3025 (Part 32):1988 RA 2009
15.	Copper (as Cu)	< 0.02	mg/l, Max	0.05	IS 3025 (Part 42):1992 RA 2009
16.	Fluoride (as F)	0.32	mg/l, Max	1.0	IS 3025 (Part 60):2008

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Kalyani Laboratories
78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT

17.	Free residual chlorine	0.2	mg/l, Min	0.20	IS 3025 (Part 26):1986 RA 2009
18.	Iron (as Fe)	0.23	mg/l, Max	1.0	IS 3025 (Part 53):2003 RA 2009
19.	Magnesium (as Mg)	11.66	mg/l, Max	30	IS 3025 (Part 46):1994 RA 2003
20.	Manganese (as Mn)	< 0.05	mg/l, Max	0.10	IS 3025 (Part 59):2006 RA 2012
21.	Mineral oil	< 0.025	mg/l, Max	0.50	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
22.	Nitrate (as NO_3)	3.5	mg/l, Max	45.0	IS 3025 (Part 34):1988 RA 2009
23.	Phenolic compounds (as C_6H_5OH)	< 0.001	mg/l, Max	0.001	IS 3025 (Part 43):1992 RA 2009
24.	Selenium (as Se)	< 0.005	mg/l, Max	0.010	IS 3025 (Part 56):2003 RA 2009
25.	Silver (as Ag)	< 0.005	mg/l, Max	0.10	Annex J of IS 13428 :2005
26.	Sulphate (as SO_4)	8.0	mg/l, Max	200	IS 3025 (Part 24):1986 RA 2009
27.	Sulphide (as H_2S)	< 0.01	mg/l, Max	0.05	IS 3025 (Part 29):1986 RA 2009
28.	Total alkalinity (as $CaCO_3$),	110	mg/l, Max	200	IS 3025 (Part 23):1986 RA 2009
29.	Total hardness (as $CaCO_3$),	104	mg/l, Max	200	IS 3025 (Part 21):2009
30.	Zinc (as Zn)	0.038	mg/l, Max	5.0	IS 3025 (Part 49):1994 RA 2009
TOXIC SUBSTANCES					
31.	Cadmium (as Cd)	< 0.001	mg/l, Max	0.003	IS 3025 (Part 41):1992 RA 2009
32.	Cyanide (as CN)	< 0.01	mg/l, Max	0.05	IS 3025 (Part 27):1986 RA 2009
33.	Lead (as Pb)	< 0.005	mg/l, Max	0.01	IS 3025 (Part 47):1994 RA 2009
34.	Mercury (as Hg)	< 0.0005	mg/l, Max	0.001	IS 3025 (Part 48):1994 RA 2009
35.	Nickel (as Ni)	< 0.01	mg/l, Max	0.02	IS 3025 (Part 54):2003 RA 2009
36.	Chromium Hexavalent (Cr^{+6})	< 0.01	mg/l	—	APHA-22nd Edition (3500-Cr-B):2012
PESTICIDES					
37.	Alachlor	< 0.01	µg/l, Max	20	USEPA 507
38.	Atrazine	< 0.01	µg/l, Max	2.0	USEPA 8141 A
39.	Aldrin	< 0.01	µg/l, Max	0.03	USEPA 508
40.	Dieldrin	< 0.01	µg/l, Max	0.03	USEPA 508
41.	Alpha HCH	< 0.01	µg/l, Max	0.01	USEPA 508

KLPL 22470A

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KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

TEXM: PARAL BHUBANESWAR-752101 ODISHA

TEST REPORT

42.	Beta HCH	< 0.01	µg/l, Max	0.04	USEPA 508
43.	Butachlor	< 0.01	µg/l, Max	125	USEPA 8141 A
44.	Chlorpyriphos	< 0.01	µg/l, Max	30	USEPA 8141 A
45.	Delta HCH	< 0.01	µg/l, Max	0.04	USEPA 508
46.	2,4-Dichlorophenoxyacetic acid	< 0.05	µg/l, Max	30	USEPA 515.1
47.	*p, p* DDE	< 0.05	µg/l, Max	1.0	USEPA 508
48.	*p, p* DDD	< 0.05	µg/l, Max	1.0	USEPA 508
49.	*p, p* DDT	< 0.05	µg/l, Max	1.0	USEPA 508
50.	*o, p* DDT	< 0.05	µg/l, Max	1.0	USEPA 508
51.	*o, p* DDD	< 0.05	µg/l, Max	1.0	USEPA 508
52.	*o, p* DDE	< 0.05	µg/l, Max	1.0	USEPA 508
53.	Endosulfan α	< 0.01	µg/l, Max	0.4	USEPA 508
54.	Endosulfan β	< 0.01	µg/l, Max	0.4	USEPA 508
55.	Endosulfan sulphate	< 0.01	µg/l, Max	0.4	USEPA 508
56.	Ethion	< 0.01	µg/l, Max	3.0	USEPA 1657 A
57.	Gamma –HCH (Lindane)	< 0.01	µg/l, Max	2.0	USEPA 508
58.	Isoproturon	< 0.01	µg/l, Max	9.0	USEPA 532
59.	Malathion	< 0.01	µg/l, Max	190	USEPA 8141 A
60.	Methyl parathion	< 0.01	µg/l, Max	0.3	USEPA 8141 A
61.	Monocrotophos	< 0.01	µg/l, Max	1.0	USEPA 8141 A
62.	Phorate	< 0.01	µg/l, Max	2.0	USEPA 8141 A
63.	Polychlorinated biphenyls	< 0.000005	mg/l, Max	0.0005	ASTM 5175
64.	Polynuclear aromatic hydro- carbons (as PAH)	< 0.0001	mg/l, Max	0.0001	APHA 6440
65.	Total arsenic (as As)	< 0.001	mg/l, Max	0.01	IS 3025 (Part 37): 1988 RA 2009
66.	Total chromium (as Cr)	< 0.02	mg/l, Max	0.05	IS 3025 (Part 52): 2003 RA 2009
BACTERIOLOGICAL QUALITY					
67.	*E. coli*	Absent	MPN/100 ml	Shall not be detected in any 100 ml sample	IS 1622:1981 RA 2009
68.	Total Coliforms	Absent	MPN/100 ml	Shall not be detected in any 100 ml sample	IS 1622:1981 RA 2009
Remarks: Nil					
Any unusual feature observed during determination				Nil	

********** End of Test Report **********

Authorized Signatory
Kalyani Laboratories Private Limited

KLPL-231694A