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From:	Rajiv Bhandari
Sent:	30 May 2020 18:08
To:	'chdmoefenv@gmail.com'
C:	sanjeevpaliwal.cpcb@nic.in; 'eer'; Npl Environment; Rajat Seth
Subject:	Six Monthly Environment Clearance Compliance Report for the Period of 1st October 2019 to 31st March 2020
Attachments:	Six monthly EC Compliance Report Oct-19 to March-20.pdf n.pdf

Dear Sir,

Please find attached Six Monthly Environment Clearance Compliance Report of M/s Nabha Power Ltd., Vill. Nalash, Distt- Patiala (Punjab) for the period from 1st October 2019 to 31st March 2020.

Hope you will find the same in order,

Thanks and Regards,

C IARSEN & TOUBRO It's all about integineering Nethe Power Limited NPL

RAJIV BHANDARI

Nabha Power Limited, Post Box 28, Near Village Nalash Distt. Patiala 140401, Punjab DGM-HSE

Tel : +91 1762 277 315 Fax : +91 1762 277 251 Mobile: +91 84271 83276

SAFETY - Stay Alert For Every Task You do...



Mailing Address: Aspire Tower, 4th floor, Plot No.55, Industrial and Business Park, Phase-I, Chandigarh-160 002 Phone: 0172 4646846 • Fax: 0172 4646802

NPL/MoEF/EC/ 23

Date:30.05.2020

Τo,

The Director Ministry of Environment, Forest and Climate Change (Northern Region)) Bays Nos. 24-25, Sector 31-A, <u>Chandigarh-160030</u>

Ref: Environmental Clearance No J-13011/44/2008- IA-II (T) dated 3rd October 2008 and as Amended on dated 15th November 2010.

Sub: Half-Yearly Environment Clearance Compliance Report for the Period of 1st October 2019 to 31st March 2020.

Dear Sir,

Please find enclosed Half Yearly Environment Clearance Compliance Report of M/s Nabha Power Ltd., Vill. Nalash, Distt- Patiala (Punjab) for the period from 1st October 2019 to 31st March 2020.

Thanking You,

Yours Sincerely,

For Nabha Power Limited

in (Rajiv Bhandari)

DGM-HSE

Encl: As above.

Cc: (i) The Executive Environment Engineer, Regional Office, Patiala, Ground Floor, Vatavaran Bhawan, Nabha Road, Patiala. (ii) Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar, Delhi.

> Wholly Owned Subsidiary of L&T Power Development Limited Corporate Office: L&T House, N M Marg, Ballard Estate, Mumbai-400 001 Regd office: PO Box No -28, Near Nalash, Rajpura-140401, Punjab CIN No: U40102PB2007PLC031039



SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE

NABHA POWER LIMITED 2×700 MW THERMAL POWER PLANT



VILL. NALASH

DISTT. PATIALA (PUNJAB)

Submitted to:

MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE Regional Office (Northern Region) Chandigarh-160030

Central Pollution Control Board, Delhi

Punjab State Pollution Control Board, Patiala

Submitted By: NABHA POWER LIMITED VILL. NALASH

PATIALA (PUNJAB)

Period: 1st October-2019 to 31st March-2020



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Introduction

Nabha Power Limited (NPL), was established as Special Purpose Vehicle (SPV) by the erstwhile Punjab State Electricity Board (PSEB) to develop the Rajpura Thermal Power Project at a site near village Nalash, Distt Patiala, Punjab. An RfQ/RfP was floated by PSEB in line with the Case 2 competitive bidding guidelines, Govt of India (GoI) and L&T Power Development Limited (a wholly owned subsidiary of L&T) was identified as the lowest bidder. NPL has signed Power Purchase Agreement on 18th January 2010 with PSEB and the NPL was also transferred to L&T Power Development Limited as its wholly owned subsidiary on 18th January, 2010.

The 1400 MW power plant is constructed as a unit configuration of 2 x 700 MW units, with one steam turbine and one boiler for each unit.

NPL is having two Pulverized Fuel Boilers, generating steam at 25.71MPa at 568 °C with two Condensing Turbo Generator Sets each having generating capacity of 700 MW of power. Installation of associated mechanical and electrical equipment, auxiliary units like coal, ash handling plant, water treatment plant, cooling water system, electrostatic precipitators (ESPs), NOx control equipment etc. are part of the total installation.

Total Capacity	2x700 MW (1400 MW)
Fuel Requirement and Source	5.7 MT/Year, SECL Mines
Water requirement and source	50 Cusec from Bhakra main canal
Status	Unit 1 Operational since 1 st Feb 2014
	Unit 2 Operational since 10 th July 2014

SALIENT FEATURES OF NABHA POWER LTD.



NABHA POWER LTD

Project Proponent	: Nabha Power Ltd.	
Project Status	: U # I & U#II Synchronised on Feb-2014 and July-2014 respectively	
Reference	: Ministry of Environment & Forest- Environmental Clearance NoJ-13011/44/2008- IA-II (T) dated 3 rd October 2008 and Amendment dated 15 th November 2010.	

Compliance Report for the period of October-2019 to March-2020

S. No.	MOEF Conditions	Compliance Status
1.	The total land requirement for the project shall be restricted to 1278 acres.	The land requirement for 1400 MW has been restricted within 1278 acres only.
2.	Prior clearance from the competent authority shall be obtained for locating the proposed power plant in proximity (about 3 kms) of the defence installation. A copy of the same shall be furnished to the ministry and the regional office of this ministry within one month from the date of issue of this clearance letter.	NOC from Ministry of defence & AAI obtained on 25 th May, 2009, Ref No.:No. 21(7)/2008/D(Coord) & 22 nd July,2008, Ref No.: No. AAI/20012/664/ 2008-ARI (NOC) respectively.
3.	Sulphur & ash contents in the coal to be used in the project shall not exceed 0.5% & 34%.	Sulphur & ash contents in the coal being used are below 0.5% & 34%. Respectively. The Testing Reports are attached here as Annexure 1 & 2 .
4.	A bi-flue stack of height 275 m shall be provided with continuous online monitoring equipment for SOx, NOx & particulate matter. Exit velocity of flue gas should not be less than 25 m/sec.	Continuous online monitoring equipment are functional at 275 Mtr. stack on both the flues attached to Boiler 1 & Boiler 2 and monitoring of PM, Sox & Nox. is being done. As per EC validity extension dated 5.02.2014, exit velocity of flue gases shall not be less than 22 m/s therefore the exit velocity of flue gas is being maintained more than 22 m/sec in both the units. The Stack Emission Monitoring Reports from MoEF & CC approved laboratory is attached here as Annexure-3 .
5.	High efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure particulate emission doesn't exceed 50 mg/m ³ .	The ESP's attached to Boiler 1 & 2 are functional and have efficiencies more than 99.99%. The SPM emissions are < 50 mg/Nm ³ . The stack Emission Monitoring Reports from MoEF & CC approved laboratory is attached here as Annexure-3
6.	Space provision shall be kept for retrofitting for FGD, if required at later date.	 Space provision of installation of FGD has been kept and contract for installation of FGD was awarded on 26 Dec 2019. Installation of FGD is under progress. Commissioning of FGD is targeted for both units by December 2022.
7.	Adequate dust extraction system such as cyclones/bag filters and water spray system in dusty areas such as coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	The Dust extraction system & Dust suppression system (water sprinklers) is operational in the coal handling area, ash handling and at all transfer points. The photographs of the same is attached here as Annexure-4
8.	Fly ash to be collected in dry form in storage facility (silos) shall be provided. 100% utilization of fly ash shall be achieved from day one. Unutilized fly ash in emergency and bottom ash shall be disposed in ash pond and bottom ash in conventional slurry mode. Mercury and other heavy metals (Hg, Cr, Pb etc.) will be monitored in bottom ash and fly ash as also in the effluent emanating from ash pond.	Fly Ash Silos (3 Nos.) are fully operational. The utilization report of Fly ash is being submitted with the Regional Office, PPCB and MoEF&CC on six monthly basis. However, the same is attached here as Annexure-5 Analysis of heavy metals is being done for both bottom & fly ash on six monthly basis.
9.	Ash pond shall be lined with HDPE lining. Adequate safety measures shall also be implemented to protect ash dyke from getting breached.	Ash Pond bed is provided with HDPE lining (500 micron thick) over 50 mm thick sand cushion and top of HDPE liner is protected with 300 mm earth cover

NPL
Nabha Power Limited

10.	Closed cycle cooling system with cooling towers shall be provided. Effluents shall be treated as per the prescribed norms.	Complied.
11.	The treated effluents confirming to the prescribed standard shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during Monsoon. Arrangement shall be made that effluent & storm water do not get mix.	The Power plant is based on Zero Discharge (ZLD) concept and the treated effluents conforming to prescribed standards are being re- circulated and reused within the Plant. There is no discharge outside the plant boundary.
12.	A Sewage Treatment Plant shall be provided, and treated sewage shall be used for raising green belt/plantation.	The Sewage treatment plant of 50 KLD capacities is in operation. The treated water is being used for Green belt development/Plantation. The treated effluent report is attached as Annexure-6
13.	Rain water harvesting should be adopted. Central Ground Water Authority/board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished.	Rain water harvesting pits have been made as per the Rain water harvesting scheme approved by CGWA.
14.	Adequate safety measures shall be provided in plant area to check/minimize spontaneous fire in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry at Chandigarh.	The safety measures submitted to MOEF vide letter ref: NPL/SKN/MOEF/1423 dated: 28 th June 2012 have been implemented to check/minimize spontaneous fire in coal yard.
15.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of project.	Adequate arrangements were made for construction labour such as toilets, STP, safe drinking water, medical health care etc. during project state.
16.	Storage facilities for liquid fuel such as LDO and HFO/LSHS shall be made in the plant area where risk is minimum to the storage facilities. Onsite and off-site disaster management plan shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modification required, if any shall be incorporated in the DMP.	The Storage tanks for LDO & HFO storage have been made after necessary risk assessment. On-site disaster management plan is prepared, and the adequacy of the Plan is being tested on regular basis through conducting mock drills.
17.	Regular monitoring of ground water in and around ash pond area shall be carried out, records maintained, and six-monthly reports shall be furnished to Regional Office, Chandigarh.	Regular monitoring is being done and reports are being submitted to MOEF & PPCB on six monthly basis. Latest reports are attached as Annexure-7
18.	A green belt of adequate width and density shall be developed around plant periphery covering about 1/3 rd of project area preferably with local species.	2.5 Lakh trees already planted @2500/ha with local species. The Green Belt Development photographs are attached as Annexure-8
19.	Activities under CSR shall be enhanced with proper financial allocation. Details of these activities shall be submitted to the Regional Office of the Ministry, SPCB and the Ministry.	Rs. 440.00 lacs have been spent during FY-19-20 against the set target of Rs.4.40. Details are attached as Annexure-9 .
20.	First aid & sanitation arrangement shall be made for the drivers and other contract workers during construction phase.	First aid centre (OHC) & adequate sanitation arrangement are available for employees as well as contractual employees.
21.	Noise level emanating from turbines shall be limited to 75 dB (A). For people working in the high noise area, requisite personal protective equipment like Earplug/ear muffs etc. shall be provided. Workers engaged in noisy area such as turbine area, air compressors etc. shall be periodically examined to	The Noise levels are maintained well below the prescribed standards. PPE's are being provided to all the workers depending upon the task being performed. Medical examination of the workers engaged in high noise area is being done on six monthly basis and records being maintained.

NPL Nabha Power Limited

	maintain audiometry record and for any hearing loss	
	including shifting to non-noisy/less noisy areas.	
22.	Regular monitoring of ground level concentration of	Monitoring reports are regularly being submitted to
	SO ₂ , NOx, SPM, RSPM and Hg shall be carried out in	Regional office of Ministry and PPCB. Latest reports are
	the impact zone and records maintained. If at any	attached as Annexure-10
	stage these levels are found to exceed prescribed	
	limits, necessary control measures shall be provided	
	immediately. The location of the monitoring stations	
	and frequency of the monitoring shall be decided in	
	consultation with SPCB. Periodic report to be	
	submitted to Regional office of this Ministry.	
23.	The project proponent shall advertise in two local	Complied.
	newspaper widely circulated in the region around the	
	project, one of which shall be in the vernacular	
	language of the locality/Municipal area/Gram	
	Panchayat concerned and on the company's website	
	within seven days from the date of clearance letter,	
	informing that the project has been accorded	
	environment clearance and copies of clearance letter	
	are available with the State Pollution Control	
	Board/Committee and may also be seen at website of	
	the ministry of Environment and forests at	
	http://envfor.nic.in.	
24.	A separate Environment Management Cell with	EMC comprising of qualified staff with adequate experience
27.	qualified staff to be set up for implementation of the	and knowledge is in place to cater environmental
	stipulated environmental safeguards.	responsibilities.
25.	Half yearly report on status of implementation of the	Complied.
25.	stipulated conditions and environmental safeguards	Complica.
	shall be submitted to this Ministry/Regional	
	Office/CPCB/SPCB.	
26.	Regional office of the Ministry of Environment &	Complied.
20.	Forests located at Chandigarh will monitor	Complica.
	implementation of stipulated conditions. A complete	
	set of documents including EIA report & EMP report	
	along with additional information submitted from time	
	to time shall be forwarded to the regional office for	
	their use during monitoring.	
27.	Separate funds shall be allocated for implementation	Being Complied
27.	of environmental protection measures along with item-	Doing Complica
	wise break-up. These costs shall be included as part	
	of project cost. The funds earmarked for the	
	environment protection measures shall not be diverted	
	for other purposes & year wise expenditure should be	
	reported to Ministry.	
28.	The project authorities shall inform the regional office	Plant is in Operation and generation capacity is 1400 MW
20.	as well as the Ministry regarding the date of financial	
	closure and final approval of project by concerned	
	authorities and the dates of start of land development	
	work and commissioning of plant.	
29.	Full co-operation should be extended to the	The NPL is providing full co-operation to the
<i></i> .	scientists/officers from the Ministry/Regional office of	scientists/officers from the Ministry/Regional office of the
	the Ministry at Chandigarh/the CPCB/the SPCB who	Ministry at Chandigarh/the CPCB/the SPCB who are
	would be monitoring compliance of environmental	monitoring compliance of environmental status, time to
	status.	time.
30.	No additional coal consumption beyond 5.8 MTPA (at	Being Complied.
50.	85 % PLF) earlier envisaged for 2 x 660 MW and no	Boing Complica.
	additional land for the enhanced capacity shall be	
	permitted.	



31.	The project proponent shall upload the status of compliance of the conditions stipulated in the environmental clearance issued vide Ministry's letter of even no. dated 03.10.2008, in its website and update periodically and also simultaneously send the same by email to regional office of Ministry of Environment and Forests.	NPL website is live & the compliance reports are uploaded periodically on website. Website address: <u>http://www.Intnabhapower.com</u>
32.	Critical pollutants levels including NOx, RPSM _{10 and 2.5} , SO ₂ shall be regularly monitored and results displayed in your website and also at main gate of the power plant.	Being Complied.

Reference: Ministry of Environment & Forest-Environmental Clearance No -J-13011/44/2008- IA-II (T) dated 3rd October 2008 and Amendment dated 15th November 2010.Validity Extension Dated 5.02.2014

S. No.	MOEF Conditions	Compliance Status
33	Harnessing solar power within the premises of the plant particularly at the available roof tops shall be under taken and status of implementation shall be submitted periodically to regional office of ministry	Solar panels on field hostel roof, Clarifier area, CHP and at DM plant area has already been provided.
34	A long-term study on radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for an in-built continuous monitoring for radio-activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	Radioactive and Heavy metal contents in Coal are being analysis on six monthly basis from approved lab of MoEF&CC and PPCB.
35	Exit velocity of flue gases shall not be less than 22 m/s. Mercury emissions from stack shall also be monitored on periodic basis.	The exit velocity of flue gases is more than 22 m/s. Mercury emissions from the stack is regularly monitored and the reports are being submitted to MOEF&CC on periodic basis. Latest reports are attached as Annexure-3
36	Fugitive emissions shall be controlled to prevent impact on agriculture or non-agriculture land.	Adequate measures to control fugitive emissions already in place.
37	No ground water shall be extracted for use in operation of power plant even in lean season.	Complied.
38	Source sustainability of water requirement shall be carried out by an institute of repute. The study shall also specify the source of water for meeting the requirement during lean season. The report shall be submitted to the Regional Office of ministry within six months.	The Source Sustainability Study of water was conducted before granting the EC by MOEF to know the source of fulfilment of water requirement by the purposed Plant. For Nabha Power Limited the source of water is Bhakhra Canal and necessary permissions in this regard was taken from Irrigation Department, Punjab and was submitted with your kind office before grant of Environmental Clearance. When we had applied for Extn. of EC, our plant was already Commissioned, and we were having valid Consent to Operate from State Pollution Control Board. Therefore, the said condition is not applicable on us .
39	Hydro geological study of the area shall be reviewed annually, and report submitted to the ministry. No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/ operation of the power plant.	No Ground Water abstraction is being done. We are only using Canal water for generation of Power. Therefore, the said condition is not applicable on us.
40	Minimum required environment flow suggested by the competent authority of the state government shall be maintained in the Channel / Rivers (as applicable) even in lean season.	Agreed

NABHA POWER LTD

Nabha Pow	er Limited	
	C.O.C of 5.0 shall be adopted	Adopted and being complied.
41		
42	Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as an option for fly ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option for mine void filing is to be adopted, prior detailed study of soil characteristics of mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close coordination with the State Pollution Control Board	Agreed
43	Green belt consisting of 3 tiers of plantations of native species around the plant and at least 100m width shall be raised. Wherever 100m width is not feasible a 50 m width shall be raised, and adequate justification shall be submitted to Ministry. Tree density shall not be less than 2500 per ha with survival rate not less than 75 %.	Complied. The Green Belt Development photographs are attached as Annexure-8
44	Three tier green belt shall be developed all around ash pond over and above the green belt around the plant boundary.	Complied.
45	A common Green Endowment Fund shall be created, and the interest earned out of it shall be used for the development and management of Green cover of the area.	Being complied
46	The project proponent shall also adequately contribute in the development of the neighbouring villages. Special package with implementation schedule for free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	 For villages NPL under the WB scheme helped building of 3 Overhead water tanks. State govt has already implemented scheme of Overhead tanks in most of the NPL catchment villages. RO water Purifiers have been installed in most of the villages by the state govt. For schools All schools in NPL catchment area have drinking water facilities linked to OH tanks / deep Borewells. Under new initiatives, NPL Started School Adoption Program under which every year-1-2 Govt. Schools will be undertaken for their complete renovation/upgradation in term of infrastructure, furniture or any other related need. Adding the support classes for children of 7th,8th,9th of Govt. schools to enhance learning level in Math/English and Science. Similarly, Libraries have been established in Govt Schools to inculcate the habit of book reading & also to increase general knowledge level. Rural Sports Tournaments are being organized twice in a year.
47	An amount of Rs 22 Crores shall be earmarked as one-time capital cost for CSR program. Subsequently a recurring expenditure of Rs 4.4 Crores per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month along with the road map for implementation.	CSR spent for last three years 2017-18: 441 Lacs 2018-19: 440 Lacs 2019-20: 440 Lacs
48	CSR scheme should address Public Hearing issues and shall be undertaken based on need based assessment in and around villages within 5.0 km of the site and in constant consultation with the village Panchayat and District administration. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall also be undertaken. Development of fodder farm, fruit bearing orchards,	 Compiled. Presently working in 49 villages (radius of 5 kms). All schemes are being implemented in the target villages in coordination with village panchayats. Annual Panchayat meeting held in Feb-19 in which Panchayat members/representative were being invited to discuss the ongoing NPL CSR initiative and to take their feedback/suggestions for future.

Nabha Pow		OWER LTD
	vocational training etc. can form a part of such program. Company shall provide separate budget for community development activities and income generating programs. Vocational training program for possible self-employment and jobs shall be imparted to identify villagers free of cost.	 To give sustainable source of livelihood to the rural women/girls, a Jute bag training cum production centres have been started at two location where approx. 84 female beneficiaries are getting training of different kinds of jute products and similarly trained students are preparing jute products and selling in the market in close association with NRLM and other govt/non govt. deptt. Local youth are being given preference for jobs in plant as per their skills, qualification and criteria set for the job.
49	It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time.	 In-built monitoring of schemes through a 5-member CSR committee chaired by Senior Plant Officials who meets quarterly to discus and implement projects identified. Social Audit of FY-19-20 is scheduled in the month of May-20.
50	An Environmental cell shall be created at the project site itself and shall be headed by an officer of the company of appropriate seniority and qualification. It shall be ensured that the head of the cell shall directly report to the Head of the organization.	Environmental Cell Headed by DGM-HSE is already in place who directly reports to the Head of Organisation.
51	Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted to the Regional Office of this ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.	Regular monitoring of ground water quality including heavy metals is being carried out regularly in and around the Ash Dykes. Piezometer wells are established around the ash pond area and being regularly monitored. Latest reports are attached as Annexure-7
52	Monitoring of the surface quantity and quality shall also be regularly conducted, and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	No Ground Water is being abstracted as we are using Canal water for generation of Power. The quality and quantity of the canal water is monitored, and records are being maintained. We are already monitoring Heavy metals in Ground Water by taking sample thru Piezometer and submitting the respective reports to Regional office of the ministry at Chandigarh. Latest reports are attached as Annexure-7
53	The environment statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	Complied. Last Environmental Report was submitted 0n 27.09.2019 with Regional Office of the Ministry at Chandigarh and PPCB, Patiala.
54	The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.	HSE Policy has been framed and accordingly officers have been designated for achieving the objectives by adherence to the Policy. We are certified for Integrated Management System requirements (ISO 9001, 14001 & 45001 & 50001)

NABHA POWER LTD

Annexure – 1

Test Report of Sulphur % in Coal



CIN: U74140PB2011PTC034739



[A Govt. Approved, ISO 9001:2015, 14001 & 45001: 2018 certified & Approved by MOEF, PPCB] TEST REPORT

PPCB-Ref. No. Lab/3238892 Dated-30.09.2011

Not Valid for Consent Purpose

Authorized Signatory-Chemical

Page 1 of 1

	the second se	Not Valid Angene Ang			
ULR No.	NA	Test Report No. EL140320RD012-A			
Type of Sample	Coal	Date of Reporting 20-03-2020			
Customer					
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18		

	P.O Box 28, Near Vill. Nalash		111 D 47000 00001 D(.10/00/18
	Distt. Patiala	Customer reference No.(If any)	NA
Sampling Protocol	ASTM D7582	Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	14-03-2020	Date of Receipt of Sample	14-03-2020
Sampling Location	From Coal Pile	Packing, Markings, Seal & Quantity	
Testing Protocol	Lab SOP	Period of Analysis	14-03-2020 to 20-03-2020
Sample Description	Black colored powder		

TEST RESULTS

I -Chemical Testing

1. Pollution & Environment (Coal)

S. No.	Test Parameter		Units	Results	Standards*	Test Method
1.	1. Sulphur as SO4		%	0.41	0.5	Lab SOP No. EL/SOP/SS/23
Remarks OTHER INFORMATION		:	Party asked for a	bove tests only.		
Abbreviation		3	ULR: Unique Lab	Report, BDL: Belo	w Detection Limit, NA: I	Not Applicable
Symbols			*Client Specifica			
Terms & Conditions			-		on backside of Test Repo	

End of Report

1 Checked by QA

Format No. F/7.8.2-PC-01 02.09.19 Rev 01

ECO BHAWAN E-207, Industrial Area, Phase VIII-B (Sector-74), Mohali (Punjab) 160071 TeleFax: 0172-4616225 M: 9781303109 consulteco@yahoo.com ecolab@ecoparyavaran.org www.ecoparyavaran.org

Annexure-2 Test Report of Ash % in Coal

Details of Average Ash Content in Coal in %

Month	Average Ash Content in Coal in %
October-19	28.69
November-19	28.75
December-19	28.87
January-20	29.09
February-20	31.38
March-20	31.58
Average	29.72

Stack Emission Monitoring Results and Photograph of Continuous Emission Monitoring System (CEMS).





CIN: U74140PB2011PTC034739

[A Govt. Approved, ISO 9001:2015, 14001 & 45001: 2018 certified & Approved by MOEF, PPCB]

PPCB-Ref. No. Lab/3238892 Dated-30.09.2011

TEST REPORT

Not Valid for Consent Purpose

ULR No. NA Type of Sample. Stack Emission Test Report No. EL140320RD009/01 Date of Reporting. 20/03/2020

Name & Address of	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18	
Customer	P.O Box 28, Near VIII. Nalash Distt. Patiala	Customer Ref. (If any)	NA	
Sampling Protocol	IS: 11255 & CPCB Guidelines (LATS/80/2013-14)	Mode of Sample Collection	Sampling by laboratory	
Date of Sampling	14-03-2020	Date of Sample Receipt	14-03-2020	
Source of Emission	Stack of Boiler-2 (2322 TPH)	Fuel Used	Coal	
Stack Description (Type, Shape & Material)	Single, Circular & Metal	APCD Details (If provided)	ESP	
Point of Sample Collection	From Port Hole after APCD	Period of Analysis	14-03-2020 to 20-03-2020	
Testing Protocol	IS: 11255 & CPCB Guidelines (LATS/80/2013-14)			
Testing Location	Site Testing & Permanent Facility			

TEST RESULTS

I-Chemical Testing

1. Atmospheric Pollution (Stack Emission)

S. No.	Test Parameter	Unit	Result	Standards	Test Method
1.	Particulate Matter (PM)	mg/Nm ³	39	50	IS: 11255 (P-1) 1985
2.	Sulphur Dioxide (SO ₂)	ppm	503	-	Lab SOP: EL/SOP/SE/12
3.	Nitrogen Oxides (as NO _x)	ppm	172	•	Lab SOP: EL/SOP/SE/12
4.	Carbon Monoxide (CO)	mg/Nm ³	17	•	Lab SOP: EL/SOP/SE/12
5.	Carbon Dioxide (CO2)	%	12.5	-	Lab SOP: EL/SOP/SE/12
6.	Mercury as Particulate Phase (Hg)	mg/Nm ³	BDL(DL 0.01)	0.03	USEPA Method-29

Remarks Party asked for above tests only ٠

OTHER INFORMATION

: ULR: Unique Lab Report, BDL Below Detection Limit; NA: Not Applicable Abbreviation Note Please refer terms and conditions on backside of Test Report (Page-1) **Terms & Conditions** **End of Report**

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ECO BHAWAN E-207, Industrial Area, Phase VIII-B (Sector-74), Mohali (Punjab) 160071 TeleFax: 0172-4616225 M: 9781303109 consulteco@yahoo.com ecolab@ecoparyavaran.org www.ecoparyavaran.org



CIN: U74140PB2011PTC034739



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TEST REPORT

Not Valid for Consent Purpose

Type of Sample. Stack Emission

NA

ULR No.

Test Report No. EL291119GA021 Date of Reporting. 03/12/2019

Name & Address of	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18	
Customer	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer Ref. (If any)	NA	
Sampling Protocol	IS: 11255 & CPCB Guidelines (LATS/80/2013-14)	Mode of Sample Collection	Sampling by laboratory	
Date of Sampling	28/11/2019	Date of Sample Receipt	29/11/2019	
Source of Emission	Stack of Boiler-1 (2322 TPH)	Fuel Used	Coal	
Stack Description (Type, Shape & Material)	Single, Circular & Metal	APCD Details (If provided)	ESP	
Point of Sample Collection	From Port Hole after APCD	Period of Analysis	29/11/2019 to 03/12/2019	
Testing Protocol	IS: 11255 & CPCB Guidelines (LATS/80/2013-14)	A 1		
Testing Location	Site Testing & Permanent Facility		(

TEST RESULTS

I -Chemical Testing

1. Atmospheric Poliution (Stack Emission)

S. No.	Test Parameter	Unit	Result	Standards	Test Method
1.	Particulate Matter (PM)	mg/Nm ³	43	50	IS: 11255 (P-1) 1985
2.	Sulphur Dioxide (SO ₂)	ppm	577	1	Lab SOP: EL/SOP/SE/12
3.	Nitrogen Oxides (as NO _x)	ppm	181	7	Lab SOP: EL/SOP/SE/12
4.	Carbon Monoxide (CO)	mg/Nm ³	20	-	Lab SOP: EL/SOP/SE/12
5.	Carbon Dioxide (CO2)	%	12.9		Lab SOP: EL/SOP/SE/12
6.	Mercury as Particulate Phase (Hg)	mg/Nm ³	BDL(DL 0.01)	0.03	USEPA Method-29

Remarks

Party asked for above tests only

OTHER INFORMATION	(
Abbreviation	1	ULR: Unique Lab Report, BDL Below Detection Limit; NA: Not Applicable
Note	:	
Terms & Conditions	ŝ	Please refer terms and conditions on backside of Test Report (Page-1)

End of Report

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CIN: U74140PB2011PTC034739



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TEST REPORT

Libit Valid for Consent Purpose

Type of Sample. Stack Emission

NA

ULR No.

Test Report No. EL291119GA022 Date of Reporting. 03/12/2019

Name & Address of	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
Customer	P.O Box 28, Near Vill. Nalash	Customer Ref. (If any)	NA
	Distt. Patiala		-
Sampling Protocol	IS: 11255 & CPCB Guidelines (LATS/80/2013-14)	Mode of Sample Collection	Sampling by laboratory
Date of Sampling	28/11/2019	Date of Sample Receipt	29/11/2019
Source of Emission	Stack of Boiler-2 (2322 TPH)	Fuel Used	Coal
Stack Description	Single, Circular & Metal	APCD Details (If provided)	ESP
(Type, Shape & Material)		*	
Point of Sample Collection	From Port Hole after APCD	Period of Analysis	29/11/2019 to 03/12/2019
Testing Protocol	IS: 11255 & CPCB Guidelines (LATS/80/2013-14)		
Testing Location	Site Testing & Permanent Facility		(e)

TEST RESULTS

I-Chemical Testing

1. Atmospheric Pollution (Stack Emission)

1

S. No.	Test Parameter	Unit	Result	Standards	Test Method
1.	Particulate Matter (PM)	mg/Nm ³	41	50	IS: 11255 (P-1) 1985
2.	Sulphur Dioxide (SO ₂)	ppm	518		Lab SOP: EL/SOP/SE/12
3,	Nitrogen Oxides (as NO _x)	ppm	170	-	Lab SOP: EL/SOP/SE/12
4.	Carbon Monoxide (CO)	mg/Nm ³	18	-	Lab SOP: EL/SOP/SE/12
5.	Carbon Dloxide (CO2)	%	11.6		Lab SOP: EL/SOP/SE/12
6.	Mercury as Particulate Phase (Hg)	mg/Nm ³	BDL(DL 0.01)	0.03	USEPA Method-29

Remarks

Party asked for above tests only

OTHER INFORMATION

Abbreviation	:	ULR: Unique Lab Report, BDL Below Detection Limit; NA: Not Applicable
Note	3	-
Terms & Conditions	:	Please refer terms and conditions on backside of Test Report (Page-1)
		End of Report

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Telefax: 0175-2302392 Email : aso2airlab@gmail.com

- 1. Laboratory Sample No.
- 2. Name of Industry

PUNJAB

- 3 Name of Sample collecting Officer
- 4. Designation of authorizing Test
- 5. Type of Sample
- 6. Date & Time of Sample collection
- 7. Date & Time of Sample receipt in Lab.
- 8. Point of Sample collection

1326-27/ H.O.Lab./Air/Monitoring/2019-20

M/s Nabha Power Ltd, Vill- Nalash, Rajpura, Distt-Mansa. Er. Gurkaran Singh, AEE and Dr. Gurpreet Singh, JSO Environmental Engineer, Regional Office, Patiala. Stack Emission 30-12-2019 30-12-2019 Details as Given Below

Results

Point of sample Collection	Parameter	Results
Port hole on stack of Unit-1 after APCD	Particulate Matter	45 mg/Nm ³
Port hole on stack of Unit-2 after APCD		



Endst. No: 637-38

k copy of the above is forwarded to the following for information and necessary action:-

- 1. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-I, Patiala.
- 2. The Environmental Engineer, Punjab Pollution Control Board, Regional Office, Patiala.

de

Scientific Officer (Air Lab)





Continuous emission monitoring system installed at main stack for measurement of Particulate Matter & Gaseous Emissions.

Measures taken to control fugitive emissions



Dust Extraction System at Crusher House



Dust Extraction System at Bunker

1. Measures taken to control fugitive emissions during coal handling





Covered conveyors for transfer of coal from Wagon tippler to coal bunkers for abatement of fugitive emissions

Dust suppression (sprinkler system) provided at each coal stockpile to arrest Dust



Automated and Mechanized Coal handling System to minimize manual operations



Three side covered windscreen to control fugitive emissions due to wind flow



Dust Suppression System installed at Wagon Tippler Area to control Fugitive Emission During Unloading of Coal.

Fly Ash Utilization Report

						Nabl	Nabha Power Ltd					
			14			Fly Ash Uti	Fly Ash Utilization FY 2019-20	-20				
				Ash Generati	on Data (MT)		Ash Utilisation Data (MT)	n Data (MT)		%Ash utilised	Itilised	
Doriod	Mandh	Coal	Dov Elv seb	Wet Collection (Pond Ash)	n (Pond Ash)	Total			Total Ash			
		Consumed(MT)	Collection	Bottom Ash	Dry Fly ash		Dry Fly ash	Pond Ash	Utilised (MT)	DFA	Total Ash	Кешагк
	Oct-19	420300	103313	13587	o	116900	103213	572381	675594	%06 [.] 66	577.93%	Pond ash quantity of 541518 Metric tonnes required as technical minimum to safeguarc HDPE lining in ash dykes as
FY 2019-20												approved by managemen: is considered as self-utilization during October
	Nov-19	374613	92298	12283	0	104581	92198	32303	124501	99.89%	119.05%	
	Dec-19	409826	101191	16953	0	118144	100991	30525	131516	99.80%	111.32%	
	Jan-20	312933	77751	12972	0	90723	78251	23003	101254	100.64%	111.61%	
	Feb-20	213046	58247	8222	0	66470	58247	4338	62585	100.00%	94.16%	
	Mar-20	164395	42579	9382	0	51961	39679	3190	42869	93.19%	82.50%	
Total	-	1895113	475378	73399	0	548778	472579	665740	1138319	99.41%	207.43%	

Annexure-6 Treated Sewage Monitoring Results





CIN: U74140PB2011PTC034739

[A Govt. Approved, ISO 9001:2015, 14001 & 45001: 2018 certified & Approved by MOEF, PPCB] TEST REPORT

PPCB-Ref. No. Lab/3238892 Dated-30.09.2011

Not Valid for Consent Purpose

Dr. Rai Singh Authorized Signatory-Chemical

Page 1 of 1

ULR No.	NA	Test Report No.	EL130320RD005	
Type of Sample	Waste Water (Sewage)	Date of Reporting	20/03/2020	

Customer	Nabha Power Limited P.O Box 28, Near Vill. Nalash	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	Distt. Patiala	Customer reference No. (If any)	NA
Sampling Protocol	IS: 3025 (P-1) 1987 R1998 Amdt-1	Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	13/03/2020	Date of Receipt of Sample	13/03/2020
Sampling Location	From Pipe (STP Outlet)	Packing, Markings, Seal & Quantity	Plastic & Glass Bottle Marked '1' 2litre + 1litre
Testing Protocol	MoEF&CC Guidelines	Period of Analysis	13/03/2020 To 20/03/2020
Sample Description	Liquid with suspended particles	S.	· · · · · · · · · · · · · · · · · · ·
Testing Location	Permanent Facility		

TEST RESULTS

I -Chemical Testing

1. Pollution & Environment (Sewage)

5. No.	Test Parameter	Units	Results	Standards*	Test Method
1.	рН	-	7.66	6.5-9.0	APHA-23 rd Ed 2017-4500B
2.	Total Dissolved Solids	mg/l	515	-	APHA-23 rd Ed 2017- 2540C
3.	Total Suspended Solids	mg/l	15	<100	APHA-23 rd Ed 2017- 2540 D
4.	Biochemical Oxygen Demand	mg/l	9.2	30	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD (3days)
5.	Chemical Oxygen Demand	mg/l	48	250	APHA-23 rd Ed 2017- 5220B
6.	Oil & Grease	mg/i	BDL(DL3)	10	APHA-23 rd Ed 2017- 5520D

Remarks

Party asked for above tests only.

Abbreviation Symbols Terms & Conditions

OTHER INFORMATION

: ULR: Unique Lab Report, NA: Not Applicable

Discharge standards as per G.S.R 1265 (E) & PPCB Guidelines

: Please refer terms and conditions on backside on Test Report (Page-1)

End of Report

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TEST REPORT

Hot Valid for Consent Purpose

ULR No.	NA	Test Report No.	EL291119GE001/00
Type of Sample Waste Water (Sewage)		Date of Reporting	03/12/2019
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference No. (If any)	NA
Sampling Protocol	IS: 3025 (P-1) 1987 R1998 Amdt-1	Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	29/11/2019	Date of Receipt of Sample	29/11/2019
Sampling Location	From Pipe (STP Outlet)	Packing, Markings, Seal & Quantity	Plastic & Glass Bottle Marked 'P/29/01' 2litre + 1litre
Testing Protocol	MoEF&CC Guidelines	Period of Analysis	29/11/2019 to 03/12/2019
Sample Description	Liquid with suspended particles	5.	* *
Testing Location	Permanent Facility	-	

TEST RESULTS

I -Chemical Testing

1. Pollution & Environment (Sewage)

PERMIT Republic

5. No.	Test Parameter	Units	Results	Standards*	Test Method
1.	рH	3	7.56	6.5-9.0	APHA-23 rd Ed 2017-4500B
2.	Total Dissolved Solids	mg/l	490	-	APHA-23 rd Ed 2017- 2540C
3.	Total Suspended Solids	mg/l	18	<100	APHA-23 rd Ed 2017- 2540 D
4.	Biochemical Oxygen Demand	mg/l	12	30	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD (3days)
5.	Chemical Oxygen Demand	mg/i	56	250	APHA-23 rd Ed 2017- 5220B
6.	Oil & Grease	mg/l	BDL(DL3)	10	APHA-23 rd Ed 2017- 5520D

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OTHER INFORMATION		
Abbreviation	:	UL
Symbols	:	Ċ
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Party asked for above tests only.

R: Unique Lab Report, NA: Not Applicable

Terms & Conditions

Discharge standards as per G.S.R 1265 (E) & PPCB Guidelines

Please refer terms and conditions on backside on Test Report (Page-1)

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Dr. Sandeep Garg **Authorized Signatory-Chemical**

Page 1 of 1

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Ground Water Quality Monitoring Results





CIN: U74140PB2011PTC034739

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TEST REPORT

PPCB-Ref. No. Lab/3238892 Dated-30.09.2011

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Dr. Rai Singh Authorized Signatory-Chemical

Page 1 of 1

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ULR No.	NA	Test Report No.	EL130320RD001
Type of Sample	Ground Water	Date of Reporting	20/03/2020
	1		
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	P.O Box 28, Near Vill. Nalash Distt. Patlala	Customer reference No. (If any)	NA
Sampling Protocol	IS: 3025 (P-1) 1987 R1998 Amdt-1	Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	13/03/2020	Date of Receipt of Sample	13/03/2020
Sampling Location	From Plezometer No.1	Packing, Markings, Seal & Quantity	Plastic & Glass Bottle Marked 'PZ-01' 2litre + 250ml
Testing Protocol	IS & APHA	Period of Analysis	13/03/2020 TO 20/03/2020
Sample Description	Colourless liquid		
Testing Location	Permanent Facility		

TEST RESULTS

I-Chemical Testing

1. Ground Water

5. No.	Test Parameter	Units	Results	Test Method
1.	Total Hardness as CaCO ₃	mg/l	105	APHA-23 rd Ed 2017- 2340C
2.	Total Dissolved Sollds	mg/l	586	APHA-23 rd Ed 2017- 2540C
3.	Total Suspended Solids	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 2540 D
4.	рН	-	7.59	APHA-23 rd Ed 2017-4500B
5.	Sulphate as SO ₄	mg/l	40	APHA-23 rd Ed 2017-4500E
6.	Biochemical Oxygen Demand	mg/l	BDL(DL 2)	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3-days at 27 ºC
7	Chemical Oxygen Demand	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 5220B
8.	Arsenic as As	mg/l	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3114C
9.	Total Chromium as Cr	mg/l	BDL(DL 0.05)	APHA-23 rd Ed 2017- 3111B
10.	Lead as Pb	mg/l	BDL(DL 0.01)	APHA-23' ^d Ed 2017- 3111B
11.	Mercury as Hg	mg/l	BDL(DL 0.0005)	APHA-23 rd Ed 2017- 3112B

Remarks **OTHER INFORMATION** Abbreviation **Symbols**

:

:

Party asked for above tests only. :

ULR: Unique Lab Report, BDL Below Detection Limit; NA: Not Applicable

Terms & Conditions

Please refer terms and conditions on backside on Test Report (Page-1) :

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CIN: U74140PB2011PTC034739

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TEST REPORT

PPCB-Ref. No. Lab/3238892 Dated-30.09.2011

Not Valid for Consent Purpose

ULR No.	NA	Test Report No.	EL130320RD002	
Type of Sample	Ground Water	Date of Reporting	20/03/2020	
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18	
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference No. (If any)	NA	
Sampling Protocol	IS: 3025 (P-1) 1987 R1998 Amdt-1	Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	13/03/2020	Date of Receipt of Sample	13/03/2020	
Sampling Location	From Plezometer No.2	Packing, Markings, Seal & Quantity	Plastic & Glass Bottle Marked 'P/30/02' 2litre + 250ml	
Testing Protocol	IS & APHA	Period of Analysis	13/03/2020 То 20/03/2020	
Sample Description	Colourless liquid		71	
Testing Location	Permanent Facility			

TEST RESULTS

I-Chemical Testing

1. Ground Water

5. No.	Test Parameter	Units	Results	Test Method
1.	Total Hardness as CaCO ₃	mg/l	96	APHA-23 rd Ed 2017- 2340C
2.	Total Dissolved Solids	mg/l	556	APHA-23 rd Ed 2017- 2540C
3.	Total Suspended Solids	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 2540 D
4.	рН		7.55	APHA-23 rd Ed 2017-4500B
5.	Sulphate as SO ₄	mg/l	45	APHA-23 rd Ed 2017-4500E
6.	Biochemical Oxygen Demand	mg/i	BDL(DL 2)	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3-days at 27 ºC
7.	Chemical Oxygen Demand	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 5220B
8.	Arsenic as As	mg/l	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3114C
9.	Total Chromium as Cr	mg/i	BDL(DL 0.05)	APHA-23 rd Ed 2017- 3111B
10.	Lead as Pb	mg/l	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3111B
11.	Mercury as Hg	mg/l	BDL(DL 0.0005)	APHA-23 rd Ed 2017- 3112B

End of Report

Remarks

Party asked for above tests only. :

OTHER INFORMATION Abbreviation **Symbols**

ULR: Unique Lab Report, BDL Below Detection Limit; NA: Not Applicable

Please refer terms and conditions on backside on Test Report (Page-1) **Terms & Conditions** :

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Page 1 of 1

Dr. Rai Singh

Authorized Signatory-Chemical 101 Phase VIII-B

(Sec.74), Mohali (Pb.)





CIN: U74140PB2011PTC034739

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TEST REPORT

PPCB-Ref. No. Lab/3238892 Dated-30.09.2011

Not Valid for Consent Purpose

ULR No.	NA	Test Report No.	EL130320RD003	
Type of Sample	Ground Water	Date of Reporting	20/03/2020	
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18	
	P.O Box 28, Near Vill. Nalash Distt. Patlala	Customer reference No. (If any)	NA	
Sampling Protocol	IS: 3025 (P-1) 1987 R1998 Amdt-1	Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	13/03/2020	Date of Receipt of Sample	13/03/2020	
Sampling Location	From Piezometer No.3	Packing, Markings, Seal & Quantity	Plastic & Glass Bottle Marked 'P/30/03' 2litre + 250ml	
Testing Protocol	IS & APHA	Period of Analysis	13/03/2020 To 20/03/2020	
Sample Description	Colourless liquid			
Testing Location	Permanent Facility			

TEST RESULTS

I -Chemical Testing

1. Ground Water

. No.	Test Parameter	Units	Results	Test Method
1.	Total Hardness as CaCO ₃	mg/l	88	APHA-23 rd Ed 2017- 2340C
2.	Total Dissolved Solids	mg/l	562	APHA-23 rd Ed 2017- 2540C
3.	Total Suspended Solids	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 2540 D
4.	рН	-	7.51	APHA-23 rd Ed 2017-4500B
5.	Sulphate as SO ₄	mg/l	43	APHA-23 rd Ed 2017-4500E
6.	Biochemical Oxygen Demand	mg/l	BDL(DL 2)	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3-days at 27 ºC
7.	Chemical Oxygen Demand	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 5220B
8.	Arsenic as As	mg/l	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3114C
9.	Total Chromium as Cr	mg/l	BDL(DL 0.05)	APHA-23 rd Ed 2017- 3111B
10.	Lead as Pb	mg/l	8DL(DL 0.01)	APHA-23 rd Ed 2017- 3111B
11.	Mercury as Hg	mg/l	BDL(DL 0.0005)	APHA-23 rd Ed 2017- 3112B

Remarks **OTHER INFORMATION** Abbreviation **Symbols**

1

Party asked for above tests only. :

ULR: Unique Lab Report, BDL Below Detection Limit; NA: Not Applicable :

Terms & Conditions

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Dr. Rai Singh Authorized Signatory-Chemical (Sec.74), Mohali Page 1 of 1 (Pb.)

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End of Report

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TEST REPORT

PPCB-Ref. No. Lab/3238892

Dated-30.09.2011

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(Ph)

Page 1 of 1

ULR No.	NA	Test Report No.	EL130320RD004	
Type of Sample	Ground Water	Date of Reporting	20/03/2020	
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18	
	P.O Box 28, Near Vill. Nalash Distt. Patlala	Customer reference No. (If any)	NA	
Sampling Protocol	IS: 3025 (P-1) 1987 R1998 Amdt-1	Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	13/03/2020	Date of Receipt of Sample	13/03/2020	
Sampling Location	From Plezometer No.4	Packing, Markings, Seal & Quantity	Plastic & Glass Bottle Marked 'P/30/04' 2litre + 250ml	
Testing Protocol	IS & APHA	Period of Analysis	13/03/2020 To 20/03/2020	
Sample Description	Colourless liquid			
Testing Location	Permanent Facility			

TEST RESULTS

I -Chemical Testing

1. Ground Water

S. No. **Test Parameter** Units Results Test Method 1. Total Hardness as CaCO₃ mg/l 108 APHA-23rd Ed 2017- 2340C 2. **Total Dissolved Solids** mg/l APHA-23rd Ed 2017- 2540C 591 3. **Total Suspended Solids** mg/l APHA-23rd Ed 2017- 2540 D BDL(DL 5) 4. рΗ . 7.62 APHA-23rdEd 2017-4500B 5. Sulphate as SO4 mg/l APHA-23rd Ed 2017-4500E 53 **Biochemical Oxygen Demand** 6. mg/l BDL(DL 2) IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3-days at 27 ºC 7. Chemical Oxygen Demand mg/l BDL(DL 5) APHA-23rd Ed 2017- 52208 8. Arsenic as As mg/l BDL(DL 0.01) APHA-23rd Ed 2017- 3114C 9. Total Chromium as Cr mg/l BDL(DL 0.05) APHA-23rd Ed 2017- 3111B 10. Lead as Pb mg/l BDL(DL 0.01) APHA-23rd Ed 2017- 3111B 11. Mercury as Hg mg/l BDL(DL 0.0005) APHA-23rd Ed 2017- 3112B

Remarks OTHER INFORMATION Abbreviation Symbols Terms & Conditions

:

: Party asked for above tests only.

ULR: Unique Lab Report, BDL Below Detection Limit; NA: Not Applicable

Please refer terms and conditions on backside on Test Report (Page-1)

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ECO BHAWAN E-207, Industrial Area, Phase VIII-B (Sector-74), Mohali (Punjab) 160071

TeleFax: 0172-4616225 M: 9781303109 consulteco@yahoo.com ecolab@ecoparyavaran.org www.ecoparyavaran.org

End of Report



CIN: U74140PB2011PTC034739



[A Govt. Approved, ISO 9001:2015, 14001 & 45001: 2018 certified & Approved by MOEF, PPCB]

TEST REPORT

Not Valid for Consent Purpose

ULR No.	NA	Test Report No.	EL301119GW001	
Type of Sample	Ground Water	Date of Reporting	03/12/2019	

Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference No. (If any)	NA
Sampling Protocol	IS: 3025 (P-1) 1987 R1998 Amdt-1	Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	30/11/2019	Date of Receipt of Sample	30/11/2019
Sampling Location	From Plezometer No.1	Packing, Markings, Seal & Quantity	Plastic & Glass Bottle Marked 'P/30/01' 2litre + 250ml
Testing Protocol	IS & APHA	Period of Analysis	30/11/2019 to 03/12/2019
Sample Description	Colourless liquid		
Testing Location	Permanent Facility		

TEST RESULTS

I -Chemical Testing

1. Ground Water

5. No.	Test Parameter	Units	Results	Test Method
1.	Total Hardness as CaCO ₃	mg/l	102	APHA-23 rd Ed 2017- 2340C
2.	Total Dissolved Solids	mg/l	575	APHA-23 rd Ed 2017- 2540C
3.	Total Suspended Solids	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 2540 D
4.	рН	(j=).	7.62	APHA-23 rd Ed 2017-4500B
5.	Sulphate as SO ₄	mg/l	41.6	APHA-23 rd Ed 2017-4500E
6.	Biochemical Oxygen Demand	mg/l	BDL(DL 2)	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3-days at 27 ºC
7.	Chemical Oxygen Demand	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 5220B
8.	Arsenic as As	mg/l	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3114C
9.	Total Chromium as Cr	mg/l	BDL(DL 0.05)	APHA-23 rd Ed 2017- 3111B
10.	Lead as Pb	mg/l	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3111B
11.	Mercury as Hg	mg/l	BDL(DL 0.0005)	APHA-23 rd Ed 2017- 3112B

Remarks **OTHER INFORMATION**

Party asked for above tests only. :

Abbreviation **Symbols**

ULR: Unique Lab Report, BDL Below Detection Limit; NA: Not Applicable :

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Terms & Conditions

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Format No. F/7.8.2-W-01-26.11.19 Rev 04

Dr. Sandeep Garg Authorized Signatory-Chemical Page 1 of 1

End of Report


CIN: U74140PB2011PTC034739



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TEST REPORT

			101 Consent Burnoro
ULR No.	NA	Test Report No.	EL301119GW002
Type of Sample	Ground Water	Date of Reporting	03/12/2019

Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18	
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference No. (If any)	NA	
Sampling Protocol	IS: 3025 (P-1) 1987 R1998 Amdt-1	Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	30/11/2019	Date of Receipt of Sample	30/11/2019	
Sampling Location	From Piezometer No.2	Packing, Markings, Seal & Quantity	Plastic & Glass Bottle Marked 'P/30/02' 2litre + 250ml	
Testing Protocol	IS & APHA	Period of Analysis	30/11/2019 to 03/12/2019	
Sample Description	Colourless liquid			
Testing Location	Permanent Facility			

TEST RESULTS

1-Chemical Testing

1. Ground Water

. No.	Test Parameter	Units	Results	Test Method
1.	Total Hardness as CaCO ₃	mg/l	98	APHA-23 rd Ed 2017- 2340C
2.	Total Dissolved Solids	mg/l	575	APHA-23 rd Ed 2017- 2540C
3.	Total Suspended Solids	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 2540 D
4.	рН	(a)	7.52	APHA-23 rd Ed 2017-4500B
5.	Sulphate as SO ₄	mg/l	48	APHA-23 rd Ed 2017-4500E
6.	Biochemical Oxygen Demand	mg/l	BDL(DL 2)	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3-days at 27 ºC
7.	Chemical Oxygen Demand	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 5220B
8.	Arsenic as As	mg/l	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3114C
9.	Total Chromium as Cr	mg/l	BDL(DL 0.05)	APHA-23 rd Ed 2017- 3111B
10.	Lead as Pb	mg/l	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3111B
11.	Mercury as Hg	mg/l	BDL(DL 0.0005)	APHA-23 rd Ed 2017- 3112B

Remarks **OTHER INFORMATION** Abbreviation **Symbols**

Format No. F/7.8.2-W-01-26.11.19 Rev 04

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ULR: Unique Lab Report, BDL Below Detection Limit; NA: Not Applicable

Terms & Conditions

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Please refer terms and conditions on backside on Test Report (Page-1) **End of Report**

Dr. Sandeep Garg

Authorized Signatory-Chemical Page 1 of 1



CIN: U74140PB2011PTC034739



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TEST REPORT

Not Valid for Consent Purpose

ULR No.	NA	Test Report No.	EL301119GW003/00	
Type of Sample	Ground Water Date of Reporting		03/12/2019	
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18	
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference No. (If any)	NA	
Sampling Protocol	IS: 3025 (P-1) 1987 R1998 Amdt-1	Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	30/11/2019	Date of Receipt of Sample	30/11/2019	
Sampling Location	From Piezometer No.3	Packing, Markings, Seal & Quantity	Plastic & Glass Bottle Marked 'P/30/03' 2litre + 250ml	
Testing Protocol	IS & APHA	Period of Analysis	30/11/2019 to 03/12/2019	
Sample Description	Colourless liquid			
Testing Location	Permanent Facility			

TEST RESULTS

I-Chemical Testing

1. Ground Water

. No.	Test Parameter	Units	Results	Test Method
1.	Total Hardness as CaCO ₃	mg/l	90	APHA-23 rd Ed 2017- 2340C
2.	Total Dissolved Solids	mg/l	578	APHA-23 rd Ed 2017- 2540C
3.	Total Suspended Solids	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 2540 D
4.	рН	-	7.61	APHA-23 rd Ed 2017-4500B
5.	Sulphate as SO ₄	mg/l	44.8	APHA-23 rd Ed 2017-4500E
6.	Biochemical Oxygen Demand	mg/l	BDL(DL 2)	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3-days at 27 ºC
7.	Chemical Oxygen Demand	mg/l	BDL(DL 5)	АРНА-23 ^{′d} Ed 2017- 5220В
8.	Arsenic as As	mg/l	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3114C
9.	Total Chromium as Cr	mg/l	BDL(DL 0.05)	APHA-23 rd Ed 2017- 3111B
10.	Lead as Pb	mg/l	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3111B
11.	Mercury as Hg	mg/l	BDL(DL 0.0005)	APHA-23 rd Ed 2017- 3112B

Remarks **OTHER INFORMATION** Abbreviation

Checked by QA

Party asked for above tests only. 1

Symbols

ULR: Unique Lab Report, BDL Below Detection Limit; NA: Not Applicable : : **Terms & Conditions**

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End of Report

Dr. Sandeep Garg Authorized Signatory-Chemical Page 1 of 1

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E-207, Industrial Area, Phase VIII-B (Sector-74), Mohali (Punjab) 160071



CIN: U74140PB2011PTC034739



[A Govt. Approved, ISO 9001:2015, 14001 & 45001: 2018 certified & Approved by MOEF, PPCB]

TEST REPORT

Not Valid for Consent Purpose

ULR No.	NA	Test Report No.	EL301119GW004	
Type of Sample	Ground Water	Date of Reporting	03/12/2019	

Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference No. (If any)	NA
Sampling Protocol	IS: 3025 (P-1) 1987 R1998 Amdt-1	Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	30/11/2019	Date of Receipt of Sample	30/11/2019
Sampling Location	From Piezometer No.4	Packing, Markings, Seal & Quantity	Plastic & Glass Bottle Marked 'P/30/04' 2litre + 250ml
Testing Protocol	IS & APHA	Period of Analysis	30/11/2019 to 03/12/2019
Sample Description	Colourless liquid	<u>.</u>	·
Testing Location	Permanent Facility		

TEST RESULTS

I -Chemical Testing

1. Ground Water

. No.	Test Parameter	Units	Results	Test Method
1.	Total Hardness as CaCO ₃	mg/l	110	APHA-23 rd Ed 2017- 2340C
2.	Total Dissolved Solids	mg/l	561	APHA-23 rd Ed 2017- 2540C
3.	Total Suspended Solids	mg/t	BDL(DL 5)	APHA-23 rd Ed 2017- 2540 D
4.	рН		7.56	APHA-23 rd Ed 2017-4500B
5.	Sulphate as SO ₄	mg/l	51.2	APHA-23 rd Ed 2017-4500E
6.	Biochemical Oxygen Demand	mg/l	BDL(DL 2)	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3-days at 27 ºC
7.	Chemical Oxygen Demand	mg/l	BDL(DL 5)	APHA-23 rd Ed 2017- 5220B
8.	Arsenic as As	mg/l	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3114C
9.	Total Chromium as Cr	mg/l	BDL(DL 0.05)	APHA-23 rd Ed 2017- 3111B
10.	Lead as Pb	mg/i	BDL(DL 0.01)	APHA-23 rd Ed 2017- 3111B
11.	Mercury as Hg	mg/l	BDL(DL 0.0005)	APHA-23 rd Ed 2017- 3112B

Remarks OTHER INFORMATION Abbreviation Symbols Terms & Conditions

Checked by QA

:

: Party asked for above tests only.

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Please refer terms and conditions on backside on Test Report (Page-1)

End of Report

Dr. Sandeep Garg **Authorized Signatory-Chemical**

Page 1 of 1

Format No. F/7.8.2-W-0126.11.19 Rev 04

E-207, Industrial Area, Phase VIII-B (Sector-74), Mohali (Punjab) 160071

GW Reports



- Laboratory Sample No.
- 2. ULR Number
- 3. Name of Industry

.

- 4. Name of Sample collecting Officer
- 5. Designation of authorizing Test
- 6. Date & Time of Sample collection
- 7. Date & Time of Sample receipt in Lab.

ਸ:ਵ:ਇ:-1/2/3/S.A.

- 8. Period of Analysis
- 9. Test Methods

GW 340-342/ H.O.Lab./ G.W. Monitoring/2019 ULR-TC70451800000001759P Ground Water Samples taken from M/s Nabha Power Limited, Vill. Nalash, Rajpura. Er. Gurkaran Singh , AEE EE, RO, Patiala. 30.12.2019 31.12.2019 31.12.2019 to 10.1.2020 As per relevant parts of IS:3025 & Methods of APHA

Results

Sr. no.	Parameters	Near Coal Handling Plant (Peizometer-1)	Near Storm Water Sump (Peizometer-2)	Along Ash Dyke (Peizometer-3)
1	рН	8.2	8.2	8.1
2	Total Suspended Solids mg/l	BDL	BDL	BDL
3	Total Dissolved Solids mg/1	474	416	444
4	*Chemical Oxygen Demand mg/l	BDL	BDL	BDL
5	*Bio-Chemical Oxygen Demand mg/l	BDL	BDL	BDL
6	Total Hardness mg/l	155	130	138
7	Total Alkalinity mg/l	260	230	270
8	Sulphate mg/l	38	32	36
2	*Mercury mg/l	BDL	BDL	BDL
10	*Lead mg/l	BDL	BDL	BDL
11	Total Chromium mg/l	BDL	BDL	BDL
12	Nickel mg/l	BDL	BDL	BDL
13	Zinc mg/l	BDL	BDL	BDL
14	Arsenic mg/ł	BDL	BDL	BDL
15	Iron mg/l	0.19	0.10	BDL

* Not covered under scope of NABL Note: BDL means Below Method Detection Limit.

-End of Report--

Analy₂

Endst. No: 1703-00

A copy of the above is forwarded to the:-

1. The Senior Environment Engineer, Punjab Pollution Control Board, Zonal Office, I, Patiala. 2. The Environment Engineer, Punjab Pollution Control Board, Regional Office, Patiala.

Asstt. Scient ficer

Dr. 15112020



Annexure-8

NPL is having a complete dedicated team of skilled horticulturists for the forestation and greenery development program at our plant. A green belt of 2.50 lac plants is developed inside as well outside plant premises. Also small patches of gardens are developed inside of the plant premises wherever the open space is available to improve the plant beautification.





Green belt area railway siding





Core Areas			
	Corporate Social Responsibility (CSR)		
Theme	Areas of Intervention		
Rural Infrastructure	Construction of concrete Roads, EWS Housing, Community Sheds, othe Rural Infrastructure.		
Education & Sports	Development of Schools, Aganwaries, Support classes, Sports intervention		
Skill Development	Jute Bag Production and Sale, Stitching and Beautician Skill Training Centres for girls, Self Help Group Formation, Enrolment of young boys and girls in various specialized courses at NSIC Rajpura/ Orane International		
Welfare Schemes	To contribute towards the cause of Girls recognition, Shagan Scheme & Girl Child Birth Incentive Scheme in all 49 villages.		
Water and Sanitation	Development of Ponds, Construction of Drains, cleaning of natural drains.		
Health and Environment	Support to Govt. Health Centres for Medical tools/furniture, Path La facility, Renovation of Health centres, Plantation, Development of lov lying areas.		
Miscellaneous	Panchayat meet, Youth Engagement, Blood donation camps, Sport Tournament, Road Safety Drive , Farmers meet etc.		

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Co	vid-19 (Community Support)
Awareness Drive in Villages	 200 flex have been placed in all 49 villages at centralized locations to educate residents about symptoms & necessary precautions etc.
Mask Distribution	 Approx 17,000 nos. triple layers cloth masks have been distributed free of cost to residents of nearby villages, police officials, Anganwari workers, Asha workers and local administration.
Hand Washing and Personal Hygiene	 17000 pieces of soap have been distributed to nearby villagers to maintain personal hygiene.
Distribution of Ration to needy Families	• Appox. 3400 needy and poor families of 49 villages under CSR have been provided necessary grocery items during the curfew/ Lockdown period.
Sanitization Drive in Villages	 To help the village panchayats in combating the Covid-19 spread, NPL carried out disinfect sprays in the surrounding villages.







Rural Development – EWS Housing

Housing is one of the necessity of living ; and therefore a key issue that needs to be addressed with urgency. As per estimate of villages covered under CSR intervention, around 150 families in 49 villages are either living in temporary sheds or lack affordable housing. Through EWS Housing scheme NPL is not only providing sustainable solution for infrastructure but reaffirming its commitment towards sustainable development of people and improvement in quality of life.

Village	Profile of beneficiary
Niamatpur	Widow
Akbarpur	Daily wage worker
Sarai Banjara	Homeless
Sural Kalan	Widow





Rural Development – Community Sheds

Concept

Community shed is another major component of Rural Development . It is conceived after requests received from community members. The constructed facility is utilized by financially weaker sections of village community for organizing socio cultural events like marriage, Death ceremonies, events & celebrations, meetings or public gathering.

Location

1- Sadhror 2- Jansui

Coverage

The developed facilities will cater to the needs of 8 nearby villages (Sadhror, Majri, Dhumma, Rai Majra, Haripur, Urdan, Jansui, Mirzapur).



Road Safety – Jansua To Mirzapur

Concept

Considering the Road safety around the NPL premises, NPL had adopted Jansua-Mirzapur link road. The road is developed on the concept of national highway to minimize the road accidents especially during the fog season.

Work Executed

Installation of Speed Breaker, Night vision Cat eyes, Reflectors, Thermostat White lining, Roadside precaution sign boards

Coverage

5 Km long stretch

9 villages - Jansua, Niamatpur, Badal Colony, Jansui, Mirzapur, Mazri, Kotla, Kharola , Rai Mazra





Water & Sanitation - Pond Development

Concept

Under water & sanitation vertical, development of pond is a major initiative of NPL.

In FY' 19-20 a pilot project was initiated to treat the used water coming out from households discharge into village pond thus maintaining aquifers and improving sanitation conditions. Simultaneously, its usage in agricultural and allied activities.

Coverage

Village Ugani was adopted where the pond has been cleaned and after desilting, strengthening its bund to increase storage and deepening. The treated water is then used for irrigation purpose.



Water & Sanitation – New Drain Development

Concept

Drainage is the main source to discharge households' water but in most of the villages it is neglected either it is village drain or natural drains used to manage the rainwater. People do not prefer construction of drain beyond a particular area of their houses and dump the households' garbage in natural drains. It poses water logging, breeding of mosquitoes and other health related issues, overflow and stagnation of water leads to damage of roads and cause accidents.

Coverage :

1. Jansua

2. Majri





Youth Engagement Program – Road Safety Awareness Drive

Concept

Youth development remained the primary focus of our CSR activities during this FY. Unlike last year we continued to help young people develop as mature, well rounded adults or deal with challenges in their lives. We have engaged rural youths and village youth club members in coordinating activities like

One week drive - Dec 2019

 In association with Traffic police Rajpura, Banur, Patiala, Basantpura.

- Engaged 7 Village Panchyats, 7 Youth Clubs, 20 Schools.

- 15 govt officials mobilized and engaged at district level.
- Conducted session in 3 govt schools, 1000 students engaged



Youth Engagement Program – NPL Rural Sports Tournament

Concept

NPL encourages playing sports not only for the physical and mental well being of people but also bring them together and strengthen unity through teamwork and sportsmanship.

To fulfill this objective NPL is organizing rural sports tournament and promoting sports culture among rural youths. It is also helping us to channelize positive energy of youths and diverted them from drug abuse and drug addiction.

Coverage

6th NPL Cup was successfully organized at village Ugani Sahib,

Impact

- 36 teams have participated
- 350+ players participated
- 2000+ spectators



Youth Engagement Program – 3rd Blood Donation Camp

Concept

To motivate the Youth of surrounding villages towards social contribution, youth groups from 49 villages have been motivated to organize events addressing health, education, livelihood issues of community members.

NPL facilitated the camp by making necessary arrangements Tentage, Refreshments, token of appreciation (NPL printed Mugs)

Location

Vill:- Badali Mai Ki ,Fatehgarh Sahib

Partner Organization

Rajindra Medical College Patiala



Meeting With Village Panchayats/Representatives

Understanding the views of stakeholders is critical to aligning our CSR and sustainability agenda with the issues they have identified as being of material interests.

For this year we have conducted various activities with internal and external stakeholders to

 Collect views and assess the expectations of stakeholders with regards to our CSR performance

 Identify and priorities key sustainability issues
 Summaries stakeholders views and provide recommendations to further enhance our CSR performance & reporting status





Education

School Adoption Program

NPL had adopted 2 Government schools (Govt Middle School, Bhagrana & Govt Primary School, Jansua)and executed repair and renovation works on the line of an ideal school. Under this initiatives NPL has repaired the classrooms, washrooms, drinking water area, mid day meal rooms and constructed eating zone for students. Around more than 700 students is being benefitted by this initiative

Contingency support to 3 Govt

Adoption of schools was a major program under education verticals but, taking care of schools which requires immediate minor interventions and supports was also considered. Therefore, in every FY' some schools are targeted which requires repairing and maintenance works

In March 2020 maintenance & repair work had executed in 3 schools (Govt Primary School - Sarai Banjara, Govt Primary School – Dhabali & Govt Primary School - Mangpur) and completed. It is benefitting to more than 250 students





Education

Extra curricular activities in schools

Books distribution - Nov 2019

70 students from 5 Govt Primary Schools has been provided academic support as well as books for Navodaya Vidyalaya Entrance Exam under Education intervention.

Reading Competition - (Dec 2019 - Jan 20)

In 9 Government primary schools Fun Fare an activity to assess the speaking and reading skills of students was conducted in Months of Dec 2019 and in Jan 20. Around 200 students were engaged.

Awareness Drive – (Dec 2019)

Awareness drives in 4 govt schools at village Nalas, Basantpura, Mirzapur & Dhabali was organized to develop the understanding of students on road safety through street play in Dec 2019. Around 500 students were benefitted.



Health

Improvement in Existing Health Infrastructure – Feb 2020

Sub Health Centers are main point at village level to address the health issues. There are 5 sub centers which cater to medical needs of patients of 49 villages under NPL's CSR intervention. The infrastructure of these facilities are not satisfactory therefore, the footfall of patients is less. These health centers had not received grants to maintain and repair the building since 2015.

To address these issues NPL had undertaken repair & renovation initiative of Sub Centers at Village Badali Mai Ki and village Mirzapur and completed the work in February 2020. These 2 facilities are regularly utilized by around 17 health workers and benefitting a population of 2400 approx. in 2 villages.





Jute Training & Production

Jute products centre – Nalash Khurd & Sindhran

To give sustainable source of livelihood to the rural women/girls, a Jute bag training cum production centers have been started at two location where approx. 81 female beneficiaries are getting training of different kinds of jute products and similarly trained students are preparing jute products and selling in the market in close association with NRLM and other govt/non govt. deptt.



Support to SHGs for Business Promotion

Promotion of SHG made product is a routine activity which enable SHGs to develop market linkage with various stakeholders , potential buyers and retailers.

Attended Craft Fare at Patiala for promotion & sale of our Jute Products. Where our SHG sold Jute products worth of Rs. 65k (approx.)

After the spread of COVID-19 our SHGs took the initiative to make home made cloth face mask. Total 33k masks have been produced and 22k masks have been distributed to various stakeholders i.e. worker's, villagers, local administration etc....



Welfare Schemes	

Initiative	Beneficiaries covered	Remarks
Shagan Scheme 200		Support of Rs.21000 to needy families on the occasion of marriage of their daughters
Female Child Birth Scheme	130	Support of Rs.21000 to needy families intern of FD on the birth occasion of female child

Annexure-10

Ambient Air Quality Monitoring Results





CIN: U74140PB2011PTC034739

[A Govt. Approved, ISO 9001:2015, 14001 & 45001: 2018 certified & Approved by MOEF, PPCB]

TEST REPORT

1.1

PPCD R ... No. Lab/3238892

Not Valid for Consent Purpose

Dr. Rai Singh Authorized Signatory-Chemical

Page 1 o

(Ph)

ULR No. NA Type of Sample Ambient Air Quality

Date of Reporting 20-03-2020

Test Report No. EL140320RD001

Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference (If any)	NA
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory
Date of Sampling	13-03-2020 to 14-03-2020	Date of Receipt of Sample	14-03-2020
Sampling Location	Near NDCT	Period of Analysis	14-03-2020 to 20-03-2020
Testing Protocol	IS:5182 and CPCB Air Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky
Testing Location	Site Testing & Permanent Facility		

TEST RESULTS

I- Chemical Testing

1. Atmospheric Pollution (Ambient Air Quality)

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S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	µg/m ³	78	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	µg/m³	43	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	μg/m ³	13	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	μg/m ³	28	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	µg/m ³	18	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O3)	µg/m³	31	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.63	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	µg/m³	0.07	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (NI)	ng/m³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	μg/m ³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m ³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks OTHER INFORMATION Abbreviation Symbol Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable -

Terms & Conditions

Please refer terms and conditions on backside of Test Report (Page-1)

End of Report

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Format No. F/7.8.2-AA-26.11.19 Rev 04

ECO BHAWAN E-207, Industrial Area, Phase VIII-B (Sector-74), Mohali (Punjab) 160071





CIN: U74140PB2011PTC034739

[A Govt. Approved, ISO 9001:2015, 14001 & 45001: 2018 certified & Approved by MOEF, PPCB]

TEST REPORT

.f. No. Lab/3238892 Not Valid for Consent Purpose Duted-30.09.2011 ULR No. NA Test Report No. EL140320RD003 **Type of Sample Ambient Air Quality** Date of Reporting 20-03-2020 Customer NPL/47000-06931 Dt.18/09/18 Nabha Power Limited Work Order No. & Date P.O Box 28, Near VIII. Nalash **Customer reference (If any)** NA Distt Patiala

	Distt. Fatiala		
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory
Date of Sampling	13-03-2020 to 14-03-2020	Date of Receipt of Sample	14-03-2020
Sampling Location	Near Loco Shed	Period of Analysis	14-03-2020 to 20-03-2020
Testing Protocol	IS:5182 and CPCB Air Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky
Testing Location	Site Testing & Permanent Facility		

TEST RESULTS

I- Chemical Testing

1. Atmospheric Pollution (Ambient Air Quality)

S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	µg/m³	75	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	μg/m ³	40	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	µg/m ³	12	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	µg/m ³	30	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH3)	µg/m³	19	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O ₃)	μg/m ³	26	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.68	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	μg/m ³	0.11	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (NI)	ng/m ³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	µg/m ³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m ³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks **OTHER INFORMATION** Abbreviation Symbol

Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

Terms & Conditions

Please refer terms and conditions on backside of Test Report (Page-1)

End of Report

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Dr. Rai Singh Authorized Signatory-Chemical Page 1 o

Format No. F/7.8.2-AA-26.11.19 Rev 04

ECO BHAWAN E-207, Industrial Area, Phase VIII-B (Sector-74), Mohali (Punjab) 160071





CIN: U74140PB2011PTC034739

[A Govt. Approved, ISO 9001:2015, 14001 & 45001: 2018 certified & Approved by MOEF, PPCB]

TEST REPORT

PCB Ref. No. Lab/3238892 Dated-30.09.2011

Not Valid for Consent Purpose

ULR No.	NA	Test Report No. EL140320RD004			
Type of Sample	Ambient Air Quality	Date of Reporting 20-03-2020			
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18		
	P.O Box 28, Near Vill. Nalash Distt. Patlala	Customer reference (If any)	NA		
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory		
Date of Sampling	13-03-2020 to 14-03-2020	Date of Receipt of Sample	14-03-2020		
Sampling Location	Near Switch Yard	Period of Analysis	14-03-2020 to 20-03-2020		
Testing Protocol	IS:5182 and CPCB Air Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky		

 Testing Location
 Site Testing & Permanent Facility

TEST RESULTS

I- Chemical Testing

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1. Atmospheric Pollution (Ambient Air Quality)

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S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m ³	73	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	μg/m ³	41	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	µg/m ³	15	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	μg/m ³	31	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	µg/m ³	16	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O ₃)	μg/m ³	28	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.68	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	µg/m³	0.09	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	µg/m ³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m ³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks OTHER INFORMATION Abbreviation Symbol Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

Terms & Conditions

Please refer terms and conditions on backside of Test Report (Page-1)

End of Report

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Dr. Rai Singh Authorized Signatory-Chemical Page 1 (

Format No. F/7.8.2-AA-26.11.19 Rev 04

E-207, Industrial Area, Phase VIII-B (Sector-74), Mohali (Punjab) 19007





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CIN: U74140PB2011PTC034739

[A Govt. Approved, ISO 9001:2015, 14001 & 45001: 2018 certified & Approved by MOEF, PPCB]

TEST REPORT

PPCB-Ref. No. Lab/3238892

Dated 30.09.2011

ULR No.	NA	Test Report No. EL140320RD002
Type of Sample	Ambient Air Quality	Date of Reporting 20-03-2020

Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	P.O Box 28, Near Vill. Nalash Distt. Patlala	Customer reference (If any)	NA
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory
Date of Sampling	13-03-2020 to 14-03-2020	Date of Receipt of Sample	14-03-2020
Sampling Location	Near Storm Water Sump	Period of Analysis	14-03-2020 to 20-03-2020
Testing Protocol	IS:5182 and CPCB Alr Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky
Testing Location	Site Testing & Permanent Facility		

TEST RESULTS

I- Chemical Testing

1. Atmospheric Pollution (Ambient Air Quality)

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S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m ³	65	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	μg/m ³	36	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	µg/m ³	11	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	μg/m ³	24	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	μg/m ³	18	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O ₃)	μg/m³	30	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.60	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	µg/m ³	0.10	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m ³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	µg/m³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m ³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks OTHER INFORMATION Abbreviation Symbol Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

Terms & Conditions

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Dr. Rai Singh Authorized Signatory-Chemical Page 1 c





CIN: U74140PB2011PTC034739

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TEST REPORT

No. Lab/3238892 I-30.09.2011		Not Valid for Consent Purpose
NA	Test Report No. EL14032	ORD006
Ambient Air Quality	Date of Reporting 20-03-20	020
Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference (If any)	NA
IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory
13-03-2020 to 14-03-2020	Date of Receipt of Sample	14-03-2020
Vill. Dadumajra	Period of Analysis	14-03-2020 to 20-03-2020
	-30.09.2011 NA Ambient Air Quality Nabha Power Limited P.O Box 28, Near VIII. Nalash Distt. Patiala IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements 13-03-2020 to 14-03-2020	-30.09.2011 NA Test Report No. EL14032 Ambient Air Quality Date of Reporting 20-03-24 Nabha Power Limited P.O Box 28, Near VIII. Nalash Distt. Patiala IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements 13-03-2020 to 14-03-2020 Date of Receipt of Sample

Testing Location Site Testing & Permanent Facility

IS:5182 and CPCB Air Manual Volume-I

(NAAQM/36/2012-13) & NAAQS 2009

TEST RESULTS

Environmental Conditions

Clear Sky

I- Chemical Testing

Testing Protocol

1. Atmospheric Pollution (Ambient Air Quality)

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S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	µg/m ³	70	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	µg/m ³	36	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	µg/m ³	09	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	µg/m ³	25	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	µg/m³	23	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O ₃)	µg/m ³	22	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.76	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	µg/m ³	BDL(DL0.04)	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m ³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	μg/m ³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m ³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks **OTHER INFORMATION** Abbreviation Symbol

Party asked for above tests only

Terms & Conditions

Please refer terms and conditions on backside of Test Report (Page-1)

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

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Dr. Rai Singh Authorized Signatory-Chemical





CIN: U74140PB2011PTC034739

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TEST REPORT



PPCB-Ref. No. Lab/3238892 Dated-30.09.2011

Not Valid for Consent Purpose

ULR No.	NA	Test Report No. EL140320RD007
Type of Sample	Ambient Air Quality	Date of Reporting 20-03-2020

Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	P.O Box 28, Near Vill. Nalash	Customer reference (If any)	NA
Sampling Protocol	Distt. Patiala IS: 5182 (P-14) 2000, CPCB Guldelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory
Date of Sampling	13-03-2020 to 14-03-2020	Date of Receipt of Sample	14-03-2020
Sampling Location	Vill.Dabhali	Period of Analysis	14-03-2020 to 20-03-2020
Testing Protocol	IS:5182 and CPCB Air Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky
Testing Location	Site Testing & Permanent Facility		

TEST RESULTS

I- Chemical Testing

1. Atmospheric Pollution (Ambient Air Quality)

S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	µg/m ³	66	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	µg/m ³	30	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	µg/m ³	12	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	µg/m ³	23	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	µg/m ³	25	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O ₃)	µg/m³	26	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.77	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	µg/m ³	BDL(DL0.04)	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m ³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	μg/m ³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m ³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks OTHER INFORMATION Abbreviation Symbol Terms & Conditions Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

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Dr. Rai Singh Authorized Signatory-Chemical





CIN: U74140PB2011PTC034739

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PPCB-Ref. No. Lab/3238892 Dated-30.09.2011 TEST REPORT

Not Valid for Consent Purpose

 ULR No.
 NA
 Test Report No.EL140320RD005/00

 Type of Sample
 Ambient Air Quality
 Date of Reporting20-03-2020

Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference (If any)	NA
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory
Date of Sampling	13-03-2020 to 14-03-2020	Date of Receipt of Sample	14-03-2020
Sampling Location	Vill.Salempura	Period of Analysis	14-03-2020 to 20-03-2020
Testing Protocol	IS:5182 and CPCB Air Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky
Testing Location	Site Testing & Permanent Facility		

TEST RESULTS

I- Chemical Testing

1. Atmospheric Pollution (Ambient Air Quality)

S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m ³	72	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	μg/m ³	38	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	μg/m ³	9	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	µg/m ³	19	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	µg/m³	22	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O ₃)	µg/m ³	25	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.73	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	µg/m³	BDL(DL0.04)	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m ³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	µg/m³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks OTHER INFORMATION Abbreviation Symbol Terms & Conditions Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

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ECO BHAWAN E-207, Industrial Area, Phase VIII-B (Sector-74), Mohali (Punjab) 160071



CIN: U74140PB2011PTC034739



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TEST REPORT

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ULR No.	NA	Test Report No.	EL301119GA004
Type of Sample	Ambient Air Quality	Date of Reporting	03/12/2019
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference (If any)	NA
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory
Date of Sampling	29/11/2019 to 30/11/2019	Date of Receipt of Sample	30/11/2019
Sampling Location	Vill.Dabhali	Period of Analysis	30/11/2019 to 03/12/2019
Testing Protocol	IS:5182 and CPCB Air Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky
Testing Location	Site Testing & Permanent Facility		

TEST RESULTS

I- Chemical Testing

1. Atmospheric Pollution (Ambient Air Quality)

S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m ³	72	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	µg/m³	41	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	µg/m ³	10	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	µg/m ³	21	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	µg/m³	24	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O ₃)	μg/m ³	23	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.95	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	µg/m³	BDL(DL0.04)	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m ³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	µg/m³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks OTHER INFORMATION Abbreviation Symbol Terms & Conditions Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

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Dr. Rai Singh **Authorized Signatory-Chemical**



CIN: U74140PB2011PTC034739



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TEST REPORT

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ULR No.	NA	Test Report No.	EL301119GA002
Type of Sample	Ambient Air Quality	Date of Reporting	03/12/2019
Customer	Nabha Power Limited	Work Order No. & Date	NDI /47000 00021 Dt 10/00/10
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference (If any)	NPL/47000-06931 Dt.18/09/18 NA
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory
Date of Sampling	29/11/2019 to 30/11/2019	Date of Receipt of Sample	30/11/2019
Sampling Location	Vill.Salempura	Period of Analysis	30/11/2019 to 03/12/2019
Testing Protocol	IS:5182 and CPCB Air Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky
Testing Location	Site Testing & Permanent Facility		

TEST RESULTS

I- Chemical Testing

1. Atmospheric Pollution (Ambient Air Quality)

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S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m³	70	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	µg/m³	39	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	µg/m³	8	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	µg/m³	17	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	µg/m³	25	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O3)	µg/m³	21	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m³	0.93	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	µg/m³	BDL(DL0.04)	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	µg/m³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m ³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks OTHER INFORMATION Abbreviation Symbol Terms & Conditions Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

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CIN: U74140PB2011PTC034739



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	No. (22/12) - 20(5) - 1	EST REPORT	.lld for Consent Purpose
ULR No.	NA	Test Report No.	EL301119GA003
Type of Sample	Ambient Air Quality	Date of Reporting	03/12/2019
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference (If any)	NA
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines	and Mode of Sample Collection	Sampling by laboratory

	Customer's Requirements		
Date of Sampling	29/11/2019 to 30/11/2019	Date of Receipt of Sample	30/11/2019
Sampling Location	Vill. Dadumajra	Period of Analysis	30/11/2019 to 03/12/2019
Testing Protocol	IS:5182 and CPCB Air Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky
Testing Location	Site Testing & Permanent Facility	2	

TEST RESULTS

I- Chemical Testing

1. Atmospheric Pollution (Ambient Air Quality)

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S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1,	Particulate Matter (PM ₁₀)	µg/m³	68	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	μg/m ³	38	60	Lab SOP EL/SOP/AAQ/01
З.	Sulphur Dioxide (SO ₂)	μg/m³	11	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	μg/m ³	23	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	µg/m³	22	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O3)	μg/m ³	25	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.88	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	μg/m ³	BDL(DL0.04)	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m ³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	µg/m³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks OTHER INFORMATION Abbreviation Symbol Terms & Conditions Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

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TEST REPORT

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Clear Sky

ULR No.	NA	Test Report No.	EL291119GA017	
Type of Sample	Ambient Air Quality	Date of Reporting	03/12/2019	
	-			
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18	
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference (If any)	NA	
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory	
Date of Sampling	28/11/2019 to 29/11/2019	Date of Receipt of Sample	29/11/2019	
Sampling Location	Near Loco Shed	Period of Analysis	29/11/2019 to 03/12/2019	

Site Testing & Permanent Facility

IS:5182 and CPCB Air Manual Volume-I

(NAAQM/36/2012-13) & NAAQS 2009

TEST RESULTS

Environmental Conditions

I- Chemical Testing

Testing Protocol

Testing Location

1. Atmospheric Pollution (Ambient Air Quality)

S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m³	79	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	μg/m ³	42	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	µg/m³	14	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	μg/m ³	29	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	μg/m ³	20	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O ₃)	µg/m ³	24	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.71	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	μg/m ³	0.18	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m ³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	μg/m ³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks OTHER INFORMATION Abbreviation Symbol

Party asked for above tests only

Terms & Conditions

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

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TEST REPORT

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ULR No.	NA	Test Report No.	EL291119GA018	
Type of Sample	Ambient Air Quality	Date of Reporting	03/12/2019	
Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18	
	P.O Box 28, Near Vill. Nalash Distt. Patiala	Customer reference (If any)	NA	
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory	
Date of Sampling	28/11/2019 to 29/11/2019	Date of Receipt of Sample	29/11/2019	
Sampling Location	Near NDCT	Period of Analysis	29/11/2019 to 03/12/2019	
Testing Protocol	IS:5182 and CPCB Air Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky	
Testing Location	Site Testing & Permanent Facility			

TEST RESULTS

I- Chemical Testing

1. Atmospheric Pollution (Ambient Air Quality)

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S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1,	Particulate Matter (PM ₁₀)	µg/m³	82	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	μg/m ³	46	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	μg/m ³	15	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	μg/m ³	30	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH3)	µg/m ³	17	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O ₃)	μg/m ³	29	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.70	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	μg/m ³	0.09	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m ³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	µg/m ³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m ³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks OTHER INFORMATION Abbreviation Symbol Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

Terms & Conditions

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ULR No.

Eco Laboratories & Consultants Pvt. Ltd.

CIN: U74140PB2011PTC034739



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Pat Valid for Consent Purpose TEST REPORT NA Test Report No. EL291119GA019 **Type of Sample** Ambient Air Quality **Date of Reporting** 03/12/2019

Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18	
	P.O Box 28, Near Vill. Nalash Distt. Patlala	Customer reference (If any)	NA	
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory	
Date of Sampling	28/11/2019 to 29/11/2019	Date of Receipt of Sample	29/11/2019	
Sampling Location	Near Storm Water Sump	Period of Analysis	29/11/2019 to 03/12/2019	
Testing Protocol	IS:5182 and CPCB Air Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky	
Testing Location	Site Testing & Permanent Facility			

TEST RESULTS

I- Chemical Testing

1. Atmospheric Pollution (Ambient Air Quality)

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S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	µg/m ³	71	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	µg/m³	39	60	Lab SOP EL/SOP/AAQ/01
3.	Sulphur Dioxide (SO ₂)	µg/m³	12	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	µg/m³	26	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	µg/m ³	19	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O ₃)	µg/m³	31	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.66	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	µg/m³	0.31	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m ³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	µg/m³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks **OTHER INFORMATION** Abbreviation Symbol

Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

Terms & Conditions

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ULR No.	NA	Test Report No.	EL291119GA020	
Type of Sample	Ambient Air Quality	Date of Reporting	03/12/2019	

Customer	Nabha Power Limited	Work Order No. & Date	NPL/47000-06931 Dt.18/09/18
	P.O Box 28, Near Vill. Nalash	Customer reference (If any)	NA
	Distt. Patiala		
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements	Mode of Sample Collection	Sampling by laboratory
Date of Sampling	28/11/2019 to 29/11/2019	Date of Receipt of Sample	29/11/2019
Sampling Location	Near Switch Yard	Period of Analysis	29/11/2019 to 03/12/2019
Testing Protocol	IS:5182 and CPCB Air Manual Volume-I (NAAQM/36/2012-13) & NAAQS 2009	Environmental Conditions	Clear Sky
Testing Location	Site Testing & Permanent Facility		

TEST RESULTS

I- Chemical Testing

1. Atmospheric Pollution (Ambient Air Quality)

S. No.	Test Parameter	Units	Results	Standards (NAAQS 2009)	Test Method
1.	Particulate Matter (PM ₁₀)	μg/m ³	75	100	IS:5182 (P-23) 2006 RA 2017
2.	Particulate Matter (PM _{2.5})	μg/m ³	44	60	Lab SOP EL/SOP/AAQ/01
3,	Sulphur Dioxide (SO ₂)	µg/m³	16	80	IS:5182 (P-2) 2001 RA 2017
4.	Oxides of Nitrogen (NO ₂)	μg/m ³	33	80	IS:5182 (P-6) 2006 RA 2017
5.	Ammonia (NH ₃)	µg/m³	15	400	Lab SOP EL/SOP/AAQ/02
6.	Ozone (O3)	μg/m ³	27	180	IS:5182 (P-9):2006 RA 2014
7.	Carbon Monoxide (CO)	mg/m ³	0.74	04	IS 5182 Part-10:1999, RA 2014
8.	Lead (Pb)	µg/m³	0.15	1.0	IS:5182 (P-22):2004 RA 2014
9.	Arsenic (As)	ng/m ³	BDL(DL1)	06	Lab SOP EL/SOP/AAQ/04
10.	Nickel (Ni)	ng/m ³	BDL(DL10)	20	Lab SOP EL/SOP/AAQ/04
11.	Benzene (C ₆ H ₆)*	µg/m³	BDL(DL5)	05	IS:5182 (P-11) 2006 RA 2017
12.	Benzo-a-pyrene (BaP), Particulate Phase Only	ng/m ³	BDL(DL1)	01	IS:5182 (P-12) 2004 RA 2014

Remarks OTHER INFORMATION Abbreviation Symbol Terms & Conditions Party asked for above tests only

ULR-Unique Lab Report ; BDL Below Detection Limit; NA Not Applicable

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