NABHA POWER LIMITED

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/Jan/ **Date: 1.01.2019**

To,

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

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 Apr 2018 to Sep 2018.

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 April 2018 to 30th September 2018.

Thanking You,

Yours Sincerely,

For Nabha Power Limited

(Rajiv Bhandari)
DGM-HSE

Encl: As above.

Cc: (i) The Executive Environment Engineer, Regional Office, Patiala, Ground Floor, Vatavaran Bhawan, Nabha Road, Patiala.
(ii) In-charge-Central Pollution Control Board, Zonal Office (North) PICUP Bhawan Vibhuti Khand, Gomti Nagar, Lucknow (UP) - 226 010

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, Lucknow

Punjab State Pollution Control Board, Patiala

Submitted By:

NABHA POWER LIMITED
VILL. NALASH

PATIALA (PUNJAB)

Period: April-2018 to September-2018

CONTENTS

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.

SALIENT FEATURES OF NABHA POWER LTD.

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 1st Feb 2014
	Unit 2 Operational since 10th July 2014

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 No.-J-13011/44/2008-IA-II (T) dated 3rd October 2008 and Amendment dated 15th November 2010.**

COMPLIANCE REPORT FOR THE PERIOD OF Apr 2018 to Sep 2018

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 25th May, 2009, Ref No.:No. 21(7)/2008/D(Coord) & 22ndJuly,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 for FGD has already been earmarked
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 pcnd.	Fly Ash Silos (3 Nos.) are fully operational. The utilization report of Fly ash is being submitted with the Regional Office, PPCB on monthly basis. However, the same is attached here as **Annexure-5** Monitoring of heavy metals is being done for both bottom & fly ash and reports are submitted with the Regional Office, MOEF & PPCB on 6 monthly basis. Latest reports are attached as **Annexure-6.**
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
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-7**
13.	Rain water harvesting should be adopted. Central Ground Water Authority/board shall be consulted for finalization of appropriate rain water harvesting technology with in 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: 28th June 2012 have been implemented to check/minimize spontaneous fire in coal yard.
15.	Provision shall be made for the housing of construction labor 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 labor such as toilets, STP, safe drinking water, medical health care etc.
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 and off-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-8**
18.	A green belt of adequate width and density shall be developed around plant periphery covering about 1/3rd of project area preferably with local species.	2.5 Lakh trees already planted @2500/ha with local species. The Green Belt Development Report is attached as **Annexure-9**
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. 4.41 crore has been spent during 2017-18 (End March 2018) against the set target of Rs.4.40 Crores. is attached as **Annexure-10**.
20.	First aid & sanitation arrangement shall be made for the drivers and other contract workers during construction phase.	First aid centre & adequate sanitation arrangement for the drivers and other contract workers are in place.
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 maintain audiometry record and for any hearing loss including shifting to non-noisy/less noisy areas.	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.

22.	Regular monitoring of ground level concentration of SO_2, NOx, SPM, RSPM and Hg shall be carried out in the impact zone and records maintained. If at any 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.	Monitoring reports are regularly being submitted to Regional office of Ministry and PPCB. Latest report are attached as **Annexure-11**
23.	The project proponent shall advertise in two local 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.	Complied.
24.	A separate Environment Management Cell with qualified staff to be set up for implementation of the stipulated environmental safeguards.	EMC comprising of qualified staff with adequate experience and knowledge is in place to cater environmental responsibilities.
25.	Half yearly report on status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry/Regional Office/CPCB/SPCB.	Complied.
26.	Regional office of the Ministry of Environment & Forests located at Chandigarh will monitor 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.	Complied.
27.	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost 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.	Being Complied
28.	The project authorities shall inform the regional office 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.	Plant is in Operation and generation capacity is 1400 MW
29.	Full co-operation should be extended to the scientists/officers from the Ministry/Regional office of the Ministry at Chandigarh/the CPCB/the SPCB who would be monitoring compliance of environmental status.	The NPL is providing full co-operation to the scientists/officers from the Ministry/Regional office of the Ministry at Chandigarh/the CPCB/the SPCB who are monitoring compliance of environmental status, time to time.
30.	No additional coal consumption beyond 5.8 MTPA (at 85 % PLF) earlier envisaged for 2 x 660 MW and no additional land for the enhanced capacity shall be permitted.	Being Complied.

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 &Monthly Environment Monitoring Reports are uploaded periodically on website. Website address: http://www.lntnabhapower.com
32.	Critical pollutants levels including NOx, $RPSM_{10 \text{ and } 2.5}$, 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 report is attached as Annexure-12
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 / PPCB on periodic basis. Latest report is 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
41	C.O.C of 5.0 shall be adopted	Adopted and being complied.

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 Report is attached as Annexure-9
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.	NPL had spent 50 Lacs Approx on the maintenance of Green Belt and hired best consultants.
46	The project proponent shall also adequately contribute in the development of the neighboring 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 all 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 Support class in surrounding villages to assist Govt. School going children in their respective studies. Similarly, Libraries have been established in Govt Schools to inculcate the habit of book reading & also to increase general knowledge level. NPL emphasis is now on the development of educational institutions with focus on renovation & upgradation of Sports, Health & Sanitation through construction of Model Aganwaries / Class rooms, washroom, renovation of school/Aganwari buildings, cycle stands. Sports Ground/Tournament,
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.	NPL has spent following since four years - 2014-15 : 4.56 cr - 2015-16 : 4.43 cr - 2016-17 : 4.47 cr - 2017-18 : 4.41 cr - 2018-19 : 4.40 cr (proposed)
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, 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	Complied. Presently working in 49 villages (radius of 5 kms). All schemes are being implemented in the target villages in coordination with village panchayats. Skill Training (Girls) – Being imparted free of cost through 11 vocational training centers. Courses being run include Beautician, Tailoring, and Embroidery. Skill Training (Boys) - Advanced welding workshop has been setup in ITI Rajpura and also supported for upgradation of existing trades of Fitter and Mechanical.

	and jobs shall be imparted to identify villagers free of cost.	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 Plant head which meets quarterly to discus and implement projects identified. - Social Audit already initiated.
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-8**
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-8**
53	The environment statement for each financial year ending 31st 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 28.09.2017 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)

Annexure – 1

Test Report of Sulphur % in Coal

Eco Laboratories & Consultants Pvt. Ltd.
CIN : U74140PB2011PTC034739
[A Govt. Approved, ISO 9001:2015, 14001 & OHSAS-18001:2007 certified & Approved by MOEF, PPCB]

TEST REPORT

Test Report No. :EL240918GS004/02 ECES-19/1184	Page No. 1/1
Customer	Nabha Power Limited PO Box 26 Near Village-Nalash Dist Patiala , Rajpura-140101
Work Order No. & Date	NPL/47000-06931 Dt.: 18/09/2018
Type of Sample	Coal
Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	24/09/2018
Sampling Location	From Coal Pile
Packing, Markings, Seal & Quantity	Poly Bag Marked 'Coal' 1kg approx.
Date of Receipt of Sample	24/09/2018
Period of Analysis	24/09/2018 To 28/09/2018
Date of Reporting	28/09/2018
Sample Observation	--

RESULTS

S.No.	Test Parameter	Unit	Results	Standard*	Test Method
1	Sulphur as SO_4	%	0.4	0.5	Lab SOP No. EL/SOP/C/01

Remarks (if any) BDL-Below Detection Limit; DL-Detection Limit
Please refer terms & conditions overleaf.
*Client Specification

Not for Consent Purpose

End of Report

For Eco Laboratories & Consultants Pvt. Ltd.

Lab Incharge

Authorized Signatory

Dr. Roopak Kumar

Format No. F/5.10-01/01

Annexure- 2

Test Report of Ash % in Coal

Annexure-2

Details of Average Ash Content in Coal in %

Month	Average Ash Content in Coal in %
Apr-18	31.37
May-18	28.97
June-18	27.89
July-18	27.83
Aug-18	27.26
Sep-18	29.58
Average Ash Content(%)	**28.82**

Annexure- 3

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

Eco Laboratories & Consultants Pvt. Ltd.
NABL / MOEF / PPCB / HSPCB / BIS approved Laboratory
ISO - 9001 : 2015, 14001 : 2015 OHSAS-18001:2007
CIN : U74140PB2011PTC034739

PPCB-Ref. No. Lab/3238892
Dated-20.09.2018

TEST REPORT

Test Report No. :EL070718GA014 EC-18-19/10567		Page No. 1/2
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Distt Patiala , Rajpura-140101	
Work Order No. & Date	NPL/47000-0427: Dt.: 23/03/2016	
Type of Sample	Stack Emission	
Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	06/07/2018	
Sampling Location	Boiler-I	
Sampling Protocol	IS: 11255 (P-1) 1985 R-2003 and Customer's Requirements	
Date of Receipt of Sample	07/07/2018	
Period of Analysis	07/07/2018 To 11/07/2018	
Date of Reporting	12/07/2018	
Testing Protocol	EPA: GSR 176 (E), April 2, 1996	
Environmental Conditions	--	

Source of emission	Boiler-I
Identification/Make	MHI
Capacity	2322 TPH
Type of Fuel Used	Coal
Fuel Quantity/hour	340 ton/hr
APCD Details (If provided)	Electrostatic Precipitator & Cyclone
Stack Identification	Single
Stack Description (Shape & Material)	Circular & Metal
Diameter of Stack (m/inch/mm)	7.5m
Sampling Port hole/Platform	Permanent
Height of Stack from ground level (m)	275m
Height of Stack from nearest roof top (m)	--
Stack Temperature (°K)	405
Stack Velocity (m/s)	21.9
Sampling Time (Minutes)	34

Not Valid for Consent Purpose

PTO

PCB-Ref No. tal/3238692
Dated-30.09.2017

Test Report No. :EL070718GA014 EC-18-19/10567	Page No. 2/2

RESULTS

S.No.	Test Parameter	Unit	Result	Standards	Method
1	Particulate Matter (PM) at 12% CO2	mg/Nm3	46	50	IS 11255 Part-1:1985 (2014)
2	Sulphur Dioxide (SO2)	ppm	420	-	Flue gas analyzer (Lab SOP: EL/SOP/SE/12,Issue No.- 03 & Issue date.- 01.01.2016)
3	Oxides of Nitrogen	ppm	221	-	Flue gas analyzer (Lab SOP: EL/SOP/SE/12, Issue No.- 03 & Issue date.- 01.01.2016)
4	Mercury (Hg)	mg/Nm3	BDL	0.03	USEPA Metthod-29
5	Carbon Monoxide (CO)	mg/Nm3	9.2	-	Flue gas analyzer (Lab SOP: EL/SOP/SE/12,Issue No.- 03 & Issue date.- 01.01.2016)

Remarks (if any)BDL Below Detection level

Not Valid for Consent Purpose

End of Report

For Eco Laboratories & Consultants Pvt. Ltd.

Lab Incharge

Authorized Signatory

Eco Laboratories & Consultants Pvt. Ltd.
NABL / MOEF / PPCB / HSPCB / BIS approved Laboratory
ISO - 9001 : 2015, 14001 : 2015 OHSAS-18001:2007
CIN : U74140PB2011PTC034739

TEST REPORT

Test Report No. :EL070718GA015 EG-18-19/0568	Page No. 1/2
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Distt Patiala , Rajpura-140101
Work Order No. & Date	NPL/47000-04271 Dt.: 23/08/2015
Type of Sample	Stack Emission
Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	06/07/2018
Sampling Location	Boiler-II
Sampling Protocol	IS: 11255 (P-1) 1985 R-2003 and Customer's Requirements
Date of Receipt of Sample	07/07/2018
Period of Analysis	07/07/2018 To 11/07/2018
Date of Reporting	12/07/2018
Testing Protocol	EPA: GSR 176 (E), April 2, 1996
Environmental Conditions	--

Source of emission	Boiler-II
Identification/Make	MHI
Capacity	2322 TPH
Type of Fuel Used	Coal
Fuel Quantity/hour	340 ton/hr
APCD Details (If provided)	Electrostatic Precipitator & Cyclone
Stack Identification	Single
Stack Description (Shape & Material)	Circular & Metal
Diameter of Stack (m/inch/mm)	7.5m
Sampling Port hole/Platform	Permanent
Height of Stack from ground level (m)	275m
Height of Stack from nearest roof top (m)	--
Stack Temperature (°K)	403
Stack Velocity (m/s)	21.5
Sampling Time (Minutes)	34

Not Valid for Consent Purpose

PTO

PPCB Ref No. 1(8)/2020/24
Dated-30.09.2011

Test Report No. :EL070718GA015	EL-18-19/10568	Page No. 2/2

RESULTS

S.No.	Test Parameter	Unit	Result	Standards	Method
1	Particulate Matter (PM) at 12% CO2	mg/Nm3	43	50	IS 11255 Part-1:1985 (2014)
2	Sulphur.Dioxide (SO2)	ppm	429	-	Flue gas analyzer (Lab SOP: EL/SOP/SE/12,Issue No.- 03 & Issue date.- 01.01.2016)
3	Oxides of Nitrogen	ppm	224	-	Flue gas analyzer (Lab SOP: EL/SOP/SE/12, Issue No.- 03 & Issue date.- 01.01.2016)
4	Mercury (Hg)	mg/Nm3	BDL	0.03	USEPA Metthod-29
5	Carbon Monoxide (CO)	mg/Nm3	7.6	-	Flue gas analyzer (Lab SOP: EL/SOP/SE/12,Issue No.- 03 & Issue date.- 01.01.2016)

Remarks (if any)BDL Below Detection level

Not Valid for Consent Purpose

End of Report

For Eco Laboratories & Consultants Pvt. Ltd.

Lab Incharge

Authorized Signatory

TEST REPORT

Test Report No. :EL2409189A0301	EC-18/11545	Page No. 1/2
Customer	Nabha Power Limited PO Box 28 Near Village Nalash Dist Patiala , Rajpura-140101	
Work Order No. & Date	NPL/47000-09931 Dt.: 18/09/2018	
Type of Sample	Stack Emission	
Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	24/09/2018	
Sampling Location	Boiler (Unit-1)	
Sampling Protocol	IS: 11255 (Pt-1) 1985 Reaff. 2003/CPCB Guidelines & Customer's	
Date of Receipt of Sample	24/09/2018	
Period of Analysis	24/09/2018 To 26/09/2018	
Date of Reporting	26/09/2018	
Testing Protocol	EPA: GSR 176 (E), April 2, 1996	
Environmental Conditions	--	

Source of emission	Stack attached to Boiler
Identification/Make	MHI
Capacity	2322 TPH
Type of Fuel Used	Coal
Fuel Quantity/hour	340 ton/hr
APCD Details (If provided)	Electrostatic Precipitator & Cyclone
Stack Identification	Single
Stack Description (Shape & Material)	Circular & Metal
Diameter of Stack (m/inch/mm)	7.5m
Sampling Port hole/Platform	Permanent
Height of Stack from ground level (m)	275m
Height of Stack from nearest roof top (m)	--
Stack Temperature (°K)	405
Sampling Time (Minutes)	90
Stack Velocity (m/sec)	23

Format No. F/5.10-01/01

Test Report No. :ELZW/25/EQA/0201	EC-15-19/1515	Page No. 2/2

RESULTS

S.No.	Test Parameter	Unit	Result	Limits	Test Method
1	Particulate Matter (PM) at 12% CO_2	mg/Nm^3	41	50	IS 11255 Part-1 1985 (2014)
2	Sulphur Dioxide (SO_2)	ppm	409	–	Lab SOP: EL/SOP/SE/12
3	Oxides of Nitrogen	ppm	211	–	Lab SOP: EL/SOP/SE/12
4	Carbon Dioxide (CO_2)	%	12.9	–	Lab SOP: EL/SOP/SE/12
5	Carbon Monoxide (CO)	mg/Nm^3	8.9	–	Lab SOP: EL/SOP/SE/12
6	Mercury (Hg) Particulate Phase	mg/Nm^3	BDL	0.03	USEPA Method-29

Remarks (if any) BDL-Below Detection Limit

Please refer "Terms & Conditions" on back side of Test Report (Page-1).

End of Report

For Eco Laboratories & Consultants Pvt. Ltd.

Lab Incharge

Authorized Signatory

Dr. Roopak Kumar

TEST REPORT

Test Report No. :EL240918GA002 EC-15-19/115'96	Page No. 1/2
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Dist Patiala , Rajpura-140101
Work Order No. & Date	NPL/47000-08931 Dt.: 18/09/2018
Type of Sample	Stack Emission
Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	24/09/2018
Sampling Location	Boiler (Unit-2)
Sampling Protocol	IS: 11255 (Pt-1) 1985 Reaff. 2003/CPCB Guidelines & Customer's
Date of Receipt of Sample	24/09/2018
Period of Analysis	24/09/2018 To 26/09/2018
Date of Reporting	26/09/2018
Testing Protocol	EPA: GSR 176 (E), April 2, 1996
Environmental Conditions	--

Source of emission	Stack attached to Boiler
Identification/Make	MHI
Capacity	2322 TPH
Type of Fuel Used	Coal
Fuel Quantity/hour	340 ton/hr
APC D Details (If provided)	Electrostatic Precipitator & Cyclone
Stack Identification	Single
Stack Description (Shape & Material)	Circular & Metal
Diameter of Stack (m/inch/mm)	7.5m
Sampling Port hole/Platform	Permanent
Height of Stack from ground level (m)	275m
Height of Stack from nearest roof top (m)	--
Stack Temperature (°K)	401
Sampling Time (Minutes)	90
Stack Velocity (m/sec)	23.2

Not to be used for Courtesy Purpose

Dr. Roopak Kumar

Format No. F/5.10-01/01

Test Report No. :ELZ/4039/BG/W322	Page No. 2/2

RESULTS

S.No.	Test Parameter	Unit	Result	Limits	Test Method
1	Particulate Matter (PM) at 12% CO_2	mg/Nm^3	39	50	IS 11255 Part-1: 1985 (2014)
2	Sulphur Dioxide (SO_2)	ppm	410	–	Lab SOP: EL/SOP/SE/12
3	Oxides of Nitrogen	ppm	220	–	Lab SOP: EL/SOP/SE/12
4	Carbon Dioxide (CO_2)	%	12.2	–	Lab SOP: EL/SOP/SE/12
5	Carbon Monoxide (CO)	mg/Nm^3	8.6	–	Lab SOP: EL/SOP/SE/12
6	Mercury (Hg) Particulate Phase	mg/Nm^3	BDL	0.03	USEPA Method-29

Remarks (if any) BDL-Below Detection Limit
Please refer "Terms & Conditions" on back side of Test Report (Page-1).

"End of Report"

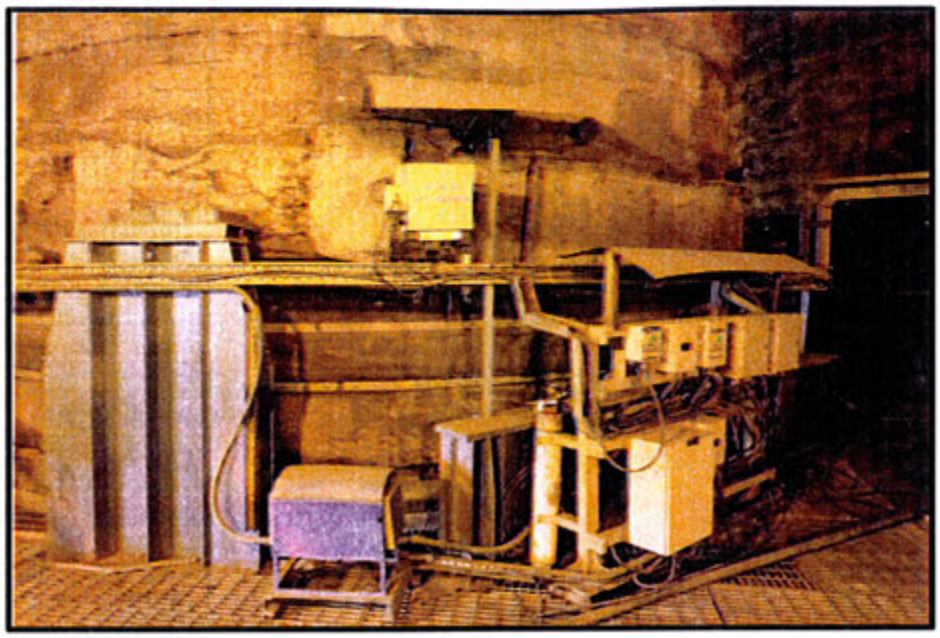
For Eco Laboratories & Consultants Pvt. Ltd.

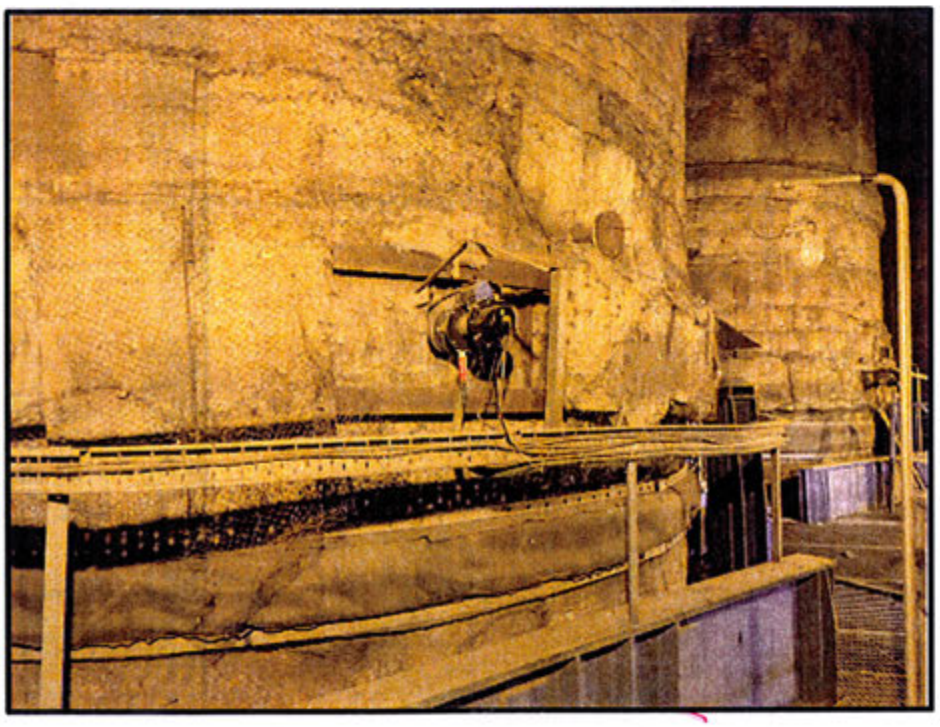
Authorized Signatory

Dr. Roopak Kumar

Lab Incharge

Annexure-3



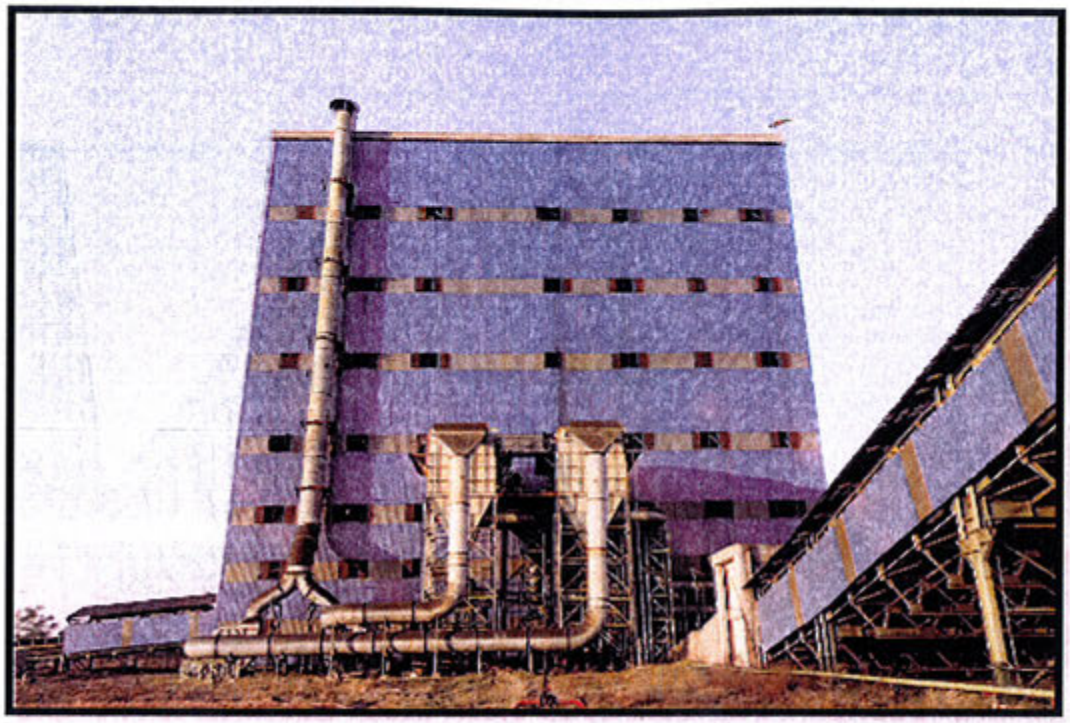


Continuous emission monitoring system installed at main stack for measurement of Particulate Matter & Gaseous Emissions.

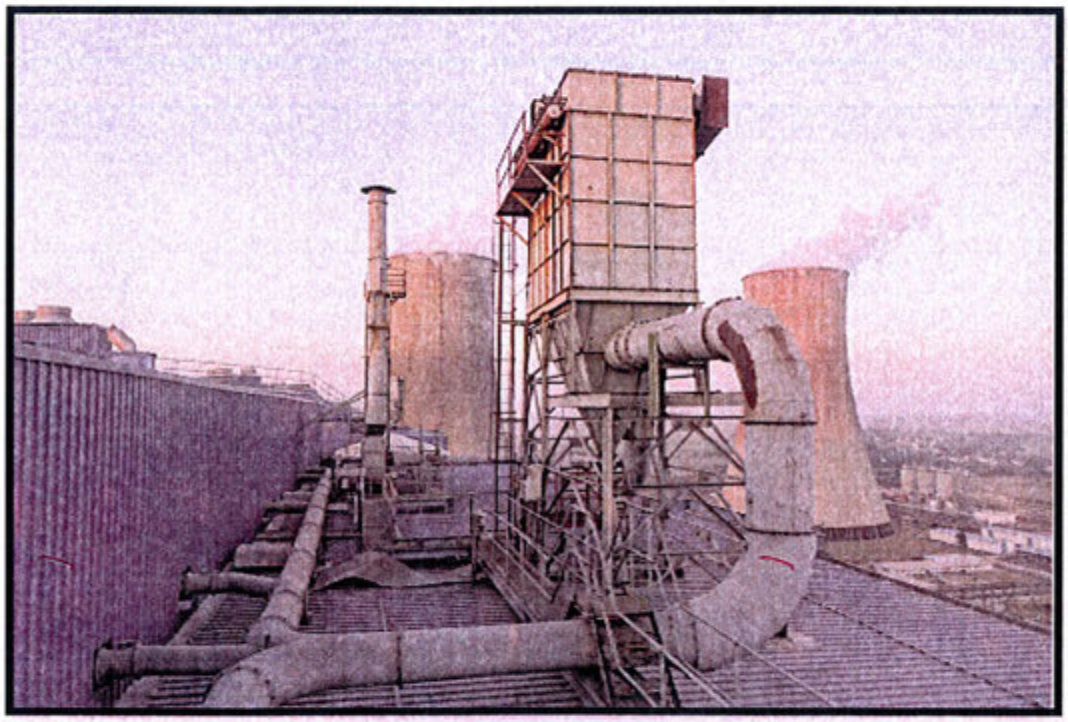
Annexure- 4

Measures taken to control fugitive emissions

Annexure-4



Dust Extraction System at Crusher House

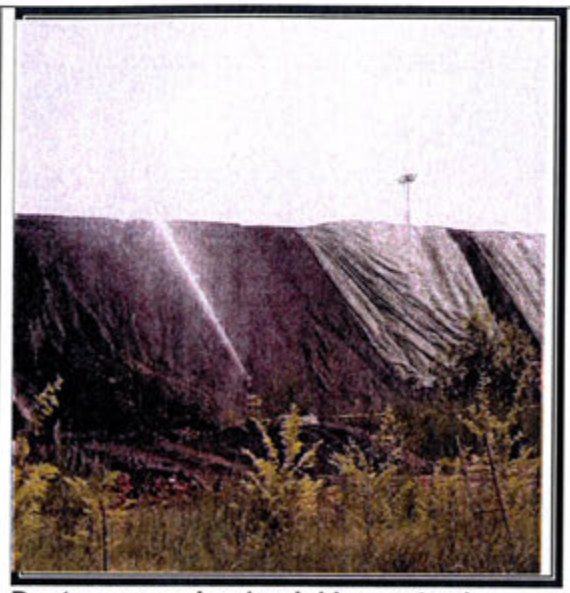


Dust Extraction System at Bunker

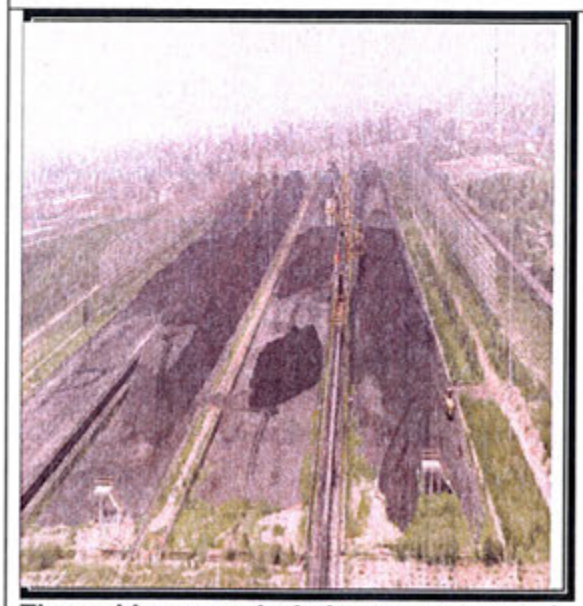
Annexure-4

1. Measures taken to control fugitive emissions during coal handling

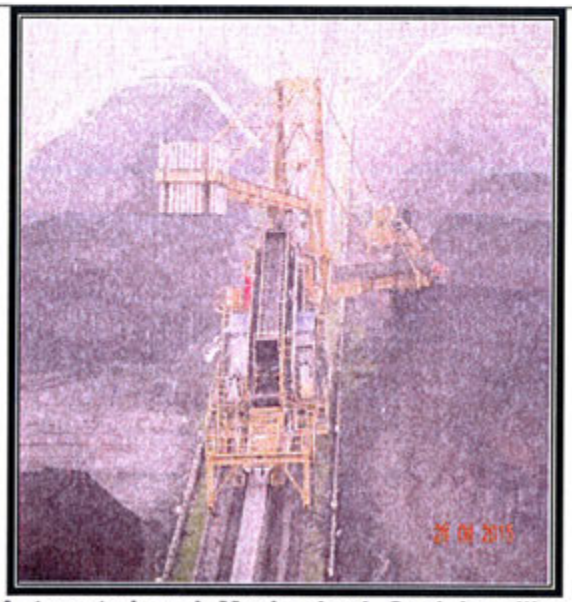
Covered conveyors for transfer of coal from Wagon tippler to coal bunkers for abatement of fugitive emissions



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



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



Automated and Mechanized Coal handling System to minimize manual operations

Annexure-4

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

Annexure-5

Fly Ash Utilization Report

Nabha Power Ltd										
Fly Ash Utilization FY 2018-19										
Period	Month	Ash Generation Data (MT)				Ash Utilisation Data (MT)		Total Ash Utilised (MT)	%Ash utilised	
		Dry Fly ash Collection	Wet Collection (Pond Ash)		Total	Dry Fly ash	Pond Ash		DFA	Total Ash
			Bottom Ash	Dry Fly ash						
Apr-18 to Sep-18	April	103499	16925	0	120424	103399	11579	114978	100%	95%
	May	111693	13748	0	125441	111593	7577	119170	100%	95%
	June	87309	15138	0	102446	87309	655	87964	100%	86%
	July	101928	17923	4100	119852	97628	0	97628	96%	81%
	August	103441	13036	0	116477	103741	2931	106672	100%	92%
	September	105179	18975	1131	124154	103849	3558	107407	99%	87%
	Total	**613049**	**95746**	**5231**	**708794**	**607519**	**26300**	**633819**	**99.10**	**89.42**

Annexure-6

Fly Ash & Bottom Ash Analysis Report

TEST REPORT

Test Report No. :EL2409180S001	EC/S-19/1552	Page No. 1/1
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Dist Patiala , Rajpura-140101	
Work Order No. & Date	NPL/47000-06931 Dt.: 18/09/2018	
Type of Sample	Bottom Ash	
Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	24/09/2018	
Sampling Location	Ash Slurry Pump House	
Packing, Markings, Seal & Quantity	Poly Bag Marked 'Bottom Ash' 1kg approx.	
Date of Receipt of Sample	24/09/2018	
Period of Analysis	24/09/2018 To 28/09/2018	
Date of Reporting	28/09/2018	
Sample Observation	--	

RESULTS

S.No.	Test Parameter	Unit	Results	Test Method
1	Lead as Pb	mg/kg	BDL(DL-0.5)	Lab SOP No. EL/SOP/SS/23
2	Arsenic as As	mg/kg	BDL(DL-0.1)	Lab SOP No. EL/SOP/SS/23
3	Total Chromium as Cr	mg/kg	BDL(DL-0.5)	Lab SOP No. EL/SOP/SS/23
4	Mercury as Hg	mg/Kg	BDL(DL-0.5)	Lab SOP No. EL/SOP/SS/23

Remarks (if any) BDL-Below Detection Limit; DL-Detection Limit
Please refer terms & conditions overleaf.

Valid for Consent Purpose

End of Report

For Eco Laboratories & Consultants Pvt. Ltd.

Lab Incharge

Authorized Signatory
Dr. Roopak Kumar

Format No. F/5.10-01/01

Eco Laboratories & Consultants Pvt. Ltd.
(CIN : U74140PB2011PTC034739)

[A Govt. Approved, ISO 9001:2015, 14001 & OHSAS-18001:2007 certified & Approved by MOEF, PPCB]

TEST REPORT

Test Report No. :EL2409185S012	EC-A-19/1855	Page No. 1/1
Customer	Nabha Power Limited PO Box 28 Near Village-Nallash Dist Patiala , Rajpura-140101	
Work Order No. & Date	NPL/47000-06931 Dt.: 18/09/2018	
Type of Sample	Fly Ash	
Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	24/09/2018	
Sampling Location	From Ash Silo	
Packing, Markings, Seal & Quantity	Poly Bag Marked 'Fly Ash' 1kg approx.	
Date of Receipt of Sample	24/09/2018	
Period of Analysis	24/09/2018 To 28/09/2018	
Date of Reporting	28/09/2018	
Sample Observation	--	

RESULTS

S.No.	Test Parameter	Unit	Results	Test Method
1	Lead as Pb	mg/kg	BDL(DL-0.1)	Lab SOP No. EL/SOP/SS/23
2	Arsenic as As	mg/kg	BDL(DL-0.1)	Lab SOP No. EL/SOP/SS/23
3	Total Chromium as Cr	mg/kg	BDL(DL-0.1)	Lab SOP No. EL/SOP/SS/23
4	Mercury as Hg	mg/kg	BDL(DL-0.5)	Lab SOP No. EL/SOP/SS/23

Remarks (if any) BDL-Below Detection Limit; DL-Detection Limit
Please refer terms & conditions overleaf

Not Valid for Consent Purpose

Lab Incharge

End of Report

For Eco Laboratories & Consultants Pvt. Ltd.

Authorized Signatory

Dr. Roopak Kumar

Format No. F/5.10-01/01

Annexure-7

Treated Sewage Monitoring Results

Eco Laboratories & Consultants Pvt. Ltd.
CIN : U74140PB2011PTC034739
[A Govt. Approved, ISO 9001:2015, 14001 & OHSAS 18001:2007 certified & Approved by MoEF, PPCB]

TEST REPORT

Test Report No. EL/2409/BGE/01	CC-17 77354	Page No. 1/1
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Dist Patiala , Rajpura-140101	
Work Order No. & Date	NPL/47000-09931 Dt.: 18/09/2018	
Type of Sample	Waste Water	
Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	24/09/2018	
Sampling Location	From STP Outlet	
Sampling Protocol	IS: 3025-(P-1)-1987-R-1998 Amdt-1 & APHA	
Packing, Markings, Seal & Quantity	Plastic & Glass Bottle Marked 'K/24/01' 2litre + 1litre	
Date of Receipt of Sample	24/09/2018	
Period of Analysis	24/09/2018 To 28/09/2018	
Date of Reporting	28/09/2018	
Sample Observation	Colourless turbid liquid.	

RESULTS

S.No.	Test Parameter	Unit	Results	Specifications*	Test Method
1	pH	-	7.32	5.5-9.0	APHA-23rd Ed 2017-4500B
2	Total Dissolved Solids	mg/l	699	2100	APHA-23rd Ed 2017- 2540C
3	Total Suspended Solids	mg/l	14	100	APHA-23rd Ed 2017- 2540 D
4	Biochemical Oxygen Demand (BOD)	mg/l	11	30	IS: 3025(P-44) 1993 R-1999 Ad.1 BOD 3days at 27°C
5	Chemical Oxygen Demand (COD)	mg/l	42	250	APHA-23rd Ed 2017- 5220B
6	Oil & Grease	mg/l	BDL(DL3)	10	APHA-23rd Ed 2017- 5520D

Remarks (if any) BDL=Below Detection Level;DL=Detection Level; Please refer terms & conditions overleaf.
*as per discharge of environmental pollutants (wastewater) in inland surface water as per The Environment(Protection)Rules, 1986

End of Report

For Eco Laboratories & Consultants Pvt. Ltd.

Lab Incharge

Authorized Signatory
Dr. Roopal Kumar

Format No. F/5.10-01/01

PUNJAB POLLUTION CONTROL BOARD VATAVARAN BHAVAN,
NABHA ROAD, PATIALA
WATER ANALYSIS REPORT

TC-7045

1. Laboratory Sample No.	292/ H.O.Lab. Monitoring/2018
2. Name of Industry	M/s Nabha Power LTD Vill.Nalash, Rajpura
3. Name of Sample collecting Officer	Er. Rajeev Gupta, EE
4. Designation of the officer authorizing Test	EE, RO Patiala
5. Type of Sample	Grab
6. Date &Time of Sample collection	02.07.2018
7. Date &Time of Sample receipt in Lab.	03.07.2018
8. Period of Analysis	03.07.2018 to 09.07.2018
9. Test Methods	As per relevant parts of IS:3025/ Methods of APHA

Results

Sr. No.	Parameters	Final Outlet of STP
1.	pH	8.0
2	Total Suspended Solids mg/l	37
3	Total Dissolved Solids mg/l	579
4	Chemical Oxygen Demand mg/l	40
5	Bio-chemical Oxygen Demand mg/l	11
5	*Oil & Grease mg/l	BDL

*Not covered under scope of NABL
BDL means below method detection limit

---End of Report---

Analyzed by

Scientific Officer

Endst. No: 21465-16 Dt. 11-7-18

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. Scientific Officer

Annexure-8

Ground Water Quality Monitoring Results

GW Reports

PUNJAB POLLUTION CONTROL BOARD
VATAVARAN BHAVAN,
NABHA ROAD, PATIALA
GROUND WATER REPORT

TC-70

1. Laboratory Sample No. — GW 98-101/ H.O.Lab./ G.W. Monitoring/2018
2. Name of Industry — M/s Nabha Power Ltd., Village Nalash, Rajpura.
3. Name of Sample collecting Officer — Dr. Rajeev Gupta, EE
4. Designation of the officer authorizing Test — EE, RO, Patiala.
5. Date &Time of Sample collection — 02.07.2018
6. Date &Time of Sample receipt in Lab. — 03.07.2018
7. Period of Analysis — 03.07.2018 to 10.07.2018
8. Test Methods — As per relevant parts of IS:3025 & Methods of APHA

Results

Sr. no.	Parameters	Near Coal Handling Plant	Near Storm Water Sump	Along the ash dyke	Between ash dyke & Reservoir
1	pH	7.6	7.6	7.7	7.4
2	Total Suspended Solids mg/l	BDL	BDL	BDL	BDL
3	Total Dissolved Solids mg/l	310	240	208	150
4	*Chemical Oxygen Demand mg/l	BDL	BDL	BDL	BDL
5	*Bio-Chemical Oxygen Demand mg/l	BDL	BDL	BDL	BDL
6	Total Hardness mg/l	65	66	64	76
7	Sulphate mg/l	41	42	38	24
8	Magnesium mg/l	7.5	6.6	7.3	6.6
9	*Mercury mg/l	BDL	BDL	BDL	BDL
10	*Lead mg/l	BDL	BDL	BDL	BDL
11	Total Chromium mg/l	BDL	BDL	BDL	BDL

* Not Covered under scope of NABL

Note: BDL means Below Method Detection Limit.

--End of Report--

Analyzed by

Scientific Officer

Endst. No: 21461-62 Dt. 11-7-18

A copy of the above is forwarded to the:-

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

for Asstt. Scientific Officer

Annexure-9

Green Belt Photographs

Annexure-9

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.

Pic-1 Green belt around coal stock pile area

Pic-2 Green belt around plant premises

Pic-3 Green belt along boundary

Pic-4 Green belt on both sides of road

Annexure-10

CSR Report

Nabha Power Limited

Corporate Social Responsibility

April- September 2018

Upgradation of Subsidiary Health Center

- Additional Room for Doctor & Patients
- Washroom
- Tile Flooring
- Windows & Door
- Outside Interlock tiling
- Whitewash

Model Aganwari

- New design as per govt. specification.
- Attractive colorful painting
- Kitchen and Washroom

Students Enrolled

Sr. No.	Centre	Students	Commencement
1	Rangian	14	Aug-12
2	Niamatpur	20	Aug-15
3	Nalash Khurd	19	Nov-13
4	Sural Kalan	46	Feb-11
5	Salempur	31	Nov-17
6	Dhuman	33	Aug-17
7	Basantpura	29	Aug-17
8	Bhagrana	34	Sep-17
9	Bhateri	31	Oct-17
10	Uppal Heri	42	Feb-18
11	Bakshiwala Basti	47	Feb-18
1	Nalash Kalan	Shifted	Aug-13
2	Sadhror	Shifted	Apr-14
3	Mirzapur	Shifted	Aug-15
4	Sindhran	Shifted	Aug-15
5	Sarai Banjara	Shifted	Aug-16
6	Harna	Shifted	Nov-13
7	Jansua	Shifted	Aug-15
		346	

Old New Shifted

Female Child Scheme
Cases Processed

Month	Beneficiaries	Amount (in Lacs)
April	5	1.05
May		
June		
July		
August		
September		
October		
November		
December		
January		
February		
March		

Shagan Scheme
Cases Processed

Month	Beneficiaries	Amount
April	14	2.94
May		
June		
July		
August		
September		
October		
November		
December		
January		
February		
March		

Inauguration of Subsidiary Health Center

- **Inaugurated by ADC (Development) Patiala in the presence of NPL officials and Village Panchayat members and residents.**

Village Kotla

Date:-30th May 2018

Inauguration of Model Aganwari

Handover to Village Panchayat in the presence of Aganwari staff , Children and mothers

Village Kotla

Date:-30th May 2018

CSTI Admission Drive

Meetings held with Youth at village Jansua and Bakshiwala Basti

Briefed about the Courses available at CSTI and also free of cost facilities and assistance in employment

Pond Work-Chak Khurd

- Reclaiming the Pond Area to develop Sports Ground
- Earth had been arranged by Village Panchayat from Panchayati Land
- NPL provided JCB to Village Panchayat to excavating and loading the earth

Multi-purpose Community Place

Multi Purpose Community Places have been completed at Badali Mai Ki, Mangpur , Cholti Kheri and Gurditpura which can be used by the village people for their common functions and panchayat meetings.

Students Enrolled

Sr. No.	Centre	Students	Commencement
1	Rangian	13	Aug-12
2	Nalash Khurd	24	Nov-13
3	Sural Kalan	48	Feb-11
4	Badali Mai Ki	23	May-18
5	Salempur	33	Nov-17
6	Dhuman	33	Aug-17
7	Basantpura	29	Aug-17
8	Bhagrana	39	Sep-17
9	Bhateri	29	Oct-17
10	Uppal Heri	41	Feb-18
11	Bakshiwala Basti	46	Feb-18
1	Nalash Kalan	Shifted	Aug-13
2	Sadhror	Shifted	Apr-14
3	Mirzapur	Shifted	Aug-15
4	Sindhran	Shifted	Aug-15
5	Sarai Banjara	Shifted	Aug-16
6	Harna	Shifted	Nov-13
7	Jansua	Shifted	Aug-15
8	Niamatpur	Shifted	Aug-15
		358	

Old New Shifted

Female Child Scheme
Cases Processed

Month	Beneficiaries	Amount (in Lacs)
April	5	1.05
May	8	1.47
June		
July		
August		
September		
October		
November		
December		
January		
February		
March		

Shagan Scheme
Cases Processed

Month	Beneficiaries	Amount
April	14	2.94
May	4	0.84
June		
July		
August		
September		
October		
November		
December		
January		
February		
March		

Visit of Officials from British High Commission

Sally Hedley,Ed Rose & Alam Bains from BHC had an exposure visit to CSR programs in the surrounding villages of the NPL. They visited Pelletizer unit , Two Training centers , Aganwari Center, Health Center and had interaction with the beneficiaries and staff

Date:-19th June 2018

Employment Generation

CSTI Drive

Recruitment Drive organized at ITI Rajpura in association with ITI Staff, in which Officials from CSTI selected candidates for various employment opportunities available and also invited other students to join short term courses vocational course available at free cost with assistance in job placement

Date:-06th June 2018

Total students given employment – 150
Students from NPL Catchment – 25 Nos

Employment Generation

CSTI Drive

NPL area shortlisted BY CSTI

SR.NO.	NAME	FATHER'S NAME	TRADE	ADDRESS
1	Ramanpreet Singh	Narinder Singh	Carpenter	Rangian
2	Ramesh Kumar	Ram Chand	Carpenter	Nalas Khurd
3	Lakhveer Singh	Balkar Singh	Carpenter	Kharola
4	Manpreet Singh	Baldev Singh	Electrician	Bakshiwala
5	Davinder Singh	Jaswinder Singh	Electrician	Uppal Heri
6	Ramanpreet Singh	Narinder Singh	Electrician	Rangian
7	Mahinder Singh	Darshan Singh	Electrician	Bhappal
8	Buta Singh	Harjeet Singh	Electrician	Bakshiwala
9	Malkeet Singh	Harbans Singh	Electrician	Chak Kalan
10	Gurpreet Singh	Jaswinder Singh	Electrician	Bakshiwala
11	Tajinder Singh	Gian Singh	Electrician	Jansua
12	Babeet Kumar	Balwinder Pal	Electrician	Jansua
13	Jaswinder Singh	Sham Lal	Electrician	Jansua
14	Gurlal Singh	Jaswinder Singh	Electrician	Bakshiwala
15	Man Singh	Lal Singh	Electrician	Bakshiwala
16	Harbhajan Singh	Bhupinder Singh	Electrician	Bhagrana
17	Lavpreet Singh	Hardeep Singh	Electrician	Bakshiwala
18	Gurmeet Singh	Chuhar Singh	Electrician	Bhappal
19	Iqbal Singh	Darshan Singh	Fitter	Bhateri
20	Nirmal Singh	Bhola Singh	Fitter	Basantpura
21	Jaspreet Singh	Harbans Singh	Fitter	Bhagrana
22	Gurtej Singh	Gurmeet Singh	Fitter	Niamatpur
23	Gurjant Gir	Rampal Gir	Welder	Nalas Kalan
24	Vikas Gir	Jangbahadur Gir	Welder	Nalas Kalan
25	Vijay Kumar	Avtar Gir	Welder	Nalas Kalan

Development of Ponds

- To develop the village ponds as a source of water conservation.
- Re claiming area to develop sports grounds or other common use.
- Help Improving Cleanliness/hygiene conditions of the village.
- NPL initiated work in Chak Khurd, Wazirabad and Dabali.

NPL Vocational Training Centres
Students Enrolled

Sr. No.	Centre	Students	Commencement
1	Rangian	14	Aug-12
2	Nalash Khurd	19	Nov-13
3	Sural Kalan	46	Feb-11
4	Badali Mai Ki	29	May-18
5	Salempur	33	Nov-17
6	Dhuman	31	Aug-17
7	Basantpura	28	Aug-17
8	Bhagrana	39	Sep-17
9	Bhateri	33	Oct-17
10	Uppal Heri	41	Feb-18
11	Bakshiwala Basti	47	Feb-18
1	Nalash Kalan	Shifted	Aug-13
2	Sadhror	Shifted	Apr-14
3	Mirzapur	Shifted	Aug-15
4	Sindhran	Shifted	Aug-15
5	Sarai Banjara	Shifted	Aug-16
6	Harna	Shifted	Nov-13
7	Jansua	Shifted	Aug-15
8	Niamatpur	Shifted	Aug-15
		360	
	Old	New	Shifted

Shagan Scheme
Cases Processed

Month	Beneficiaries	Amount
April	14	2.94
May	4	0.84
June	10	2.10
July		
August		
September		
October		
November		
December		
January		
February		
March		

Female Child Scheme
Cases Processed

Month	Beneficiaries	Amount (in Lacs)
April	5	1.05
May	7	1.47
June	0	0
July		
August		
September		
October		
November		
December		
January		
February		
March		

Path Lab SHC Kotla

- **Public Computerized Lab Rajpura**
- **35 years old Lab**
- **Equipped with latest machines**
- **Located at prime location/easy reachable**

NABHA POWER LIMITED

(CHARITABLE LABORATORY SERVICE)

SUPPORTED BY :- PUBLIC COMPUTERISED LABORATORY, RAJPURA

TEST NAME	NORAMI RATES (in Rs.)	OUR RATES (in Rs.)
HB	20	10
TLC	20	10
DLC	20	10
ESR	50	30
CBC	250	100
B.SUGAR	20	10
UREA	50	40
CREATININE	50	40
URIC ACID	50	40
SGOT	50	40
SGPT	50	40
BILIRUBIN	50	40
LIPID PROFILE	300	200
LIVER FUNCTION TEST	300	200
KIDNEY FUNCTION TEST	400	300
THYROID COMPLETE	500	300
TSH	200	100
URINE C/E	50	20
STOOL TEST	50	20

Meeting with Health Workers/Staff 27th July 2018

Venue:- SHC Kotla

Participants: (30)
ANMS, ASHA Workers, Aganwari Workers

Purpose:-
To brief them about the proposed initiative of Path Lab and also understanding of their respective Role/Responsibilities and their basic requirements.

Sports Event- Dhumma 27th July 2018

Venue:-
Govt High School, Dhumma

Event:-
Practice matches for preparation of participation in Inter School Zonal Tournament
&
Distribution of Sports Kits (Track suits) to players.

Support to Aganwari Centers

- **Distribution of Steel Almirah to 60 Aganwaries centers**
- **Required for safe record keeping of documents/files.**
- **Created a good impact while meeting their immense need.**

Model Aganwari Building- Jansua

- Handed over new constructed building to Aganwari Children/Staff and Village People
- Constructed with latest design/painting work with provision of Kitchen and washroom
- Earlier Aganwari accommodation was in very miserable/unhygienic conditions.
- Jansua is a needy village as 90-95 % population belongs to poor economical background.

SHG Updates

Existing SHGs-5	New Formation-6	In Process-7	Total
Rangian-3 Sarai Banjara-2	Bhateri-3 Uppal Heri-3	Bakhshiwala-1 Sural Kalan-1 Bhagrana-1 Salempur-3 Badali Mai Ki-1	E-5 N-6 P-7 ---------- 18

Meetings regarding formation of SHGs being held at Badali Mai Ki, Bhagrana, Salempur, Bakhshiwala, Surak Kalan

SHGs Have Been Engaged In Different Activities

Rakhi Making

Village- Rangian
SHG-
Neel Kamal, Chardi Kala &
Guru Nanak Dev Ji

Pickle Making

Village- Rangian
SHG- Chardi Kala, Neel Kamal

Shagan Scheme
Case Processed

Month	Beneficiaries	Amount
April	14	2.94
May	4	0.84
June	10	2.10
July	2	0.42
August		
September		
October		
November		
December		
January		
February		
March		

Female Child Scheme
Case Processed

Month	Beneficiaries	Amount (in Lacs)
April	5	1.05
May	7	1.47
June	0	0
July	22	4.62
August		
September		
October		
November		
December		
January		
February		
March		

Training Students Enrolled

Sr. No.	Centre	Students	Commencement
1	Rangian	14	Aug-12
2	Nalash Khurd	20	Nov-13
3	Sural Kalan	46	Feb-11
4	Badali Mai Ki	24	May-18
5	Salempur	32	Nov-17
6	Dhuman	43	Aug-17
7	Basantpura	29	Aug-17
8	Bhagrana	37	Sep-17
9	Bhateri	31	Oct-17
10	Uppal Heri	41	Feb-18
11	Bakshiwala Basti	46	Feb-18
1	Nalash Kalan	Shifted	Aug-13
2	Sadhror	Shifted	Apr-14
3	Mirzapur	Shifted	Aug-15
4	Sindhran	Shifted	Aug-15
5	Sarai Banjara	Shifted	Aug-16
6	Harna	Shifted	Nov-13
7	Jansua	Shifted	Aug-15
8	Niamatpur	Shifted	Aug-15
		363	

Old Shifted

Inauguration of Path Lab SHC Kotla

Inaugurated by CE NPL along senior plant officials in the presence of Village Panchayat ,Health/Aganwari Workers and Village Sarpanchs of surrounding villages

Date:- 09th August 2018

Pathlab opens at govt health centre at Kotla

Lab opens at Kotla

Patiala: As a relief to the rural masses, a lab was made operational at the Government Subsidiary Health Centre, Kotla (Rajpura). Earlier, the villagers had to visit Rajpura, which is 15 kms away, for consultation and medical tests. This lab will provide visitors with all pathological tests at subsidised rates. The health centre has a doctor and a pharmacist available five days a week. Chief Executive, Nabha Power Limited, Athar Shahab, while dedicating the lab to the village, emphasised the importance of health in the development of any state. The lab

ਕੋਟਲਾ 'ਚ ਲੈਬਾਰਟਰੀ ਸ਼ੁਰੂ ਕੀਤੀ

Media Coverage of Path Lab Inauguration

SHG Capacity Building Program

- **Faculty:-** District Development Manager Nabard, FGHS
- District Manager Coop Bank, FGHS
- **Venue:-** Auditorium ,NPL
- **Participants:** Training Center Instructors (13)
- Field Staff (3)
- CSR Team
- **Purpose:- To impart awareness to the NPL field staff about SHG concept ,necessary record keeping, Nabard/Coop Banks different initiatives to promote SHGs**

SHGs Update /AUGUST 2018

New Formation

Sr.No	Village	Nos	SHG
1	Sarai Banjara	01	▪ Simran
2	Upalheri	02	▪ Guru Nanak ▪ Nai Umang
3	Salempur	03	▪ Karan ▪ Preet ▪ Harman
4	Badali	01	▪ Chardi Kala
5	Harna	01	▪ Sarbat Da Bhala
6	Sural Kalan	01	▪ Sukhmani
7	Bakshiwala	02	▪ Nai Disha ▪ Umang
8	Bhagrana	01	▪ Guru Kirpa

Independence Day- SHG Member's Participation

- To honour efforts to Women Self Help Groups, members were invited to NPL to join the Independence Day Celebrations .CE mentioned their efforts and encourage them to do well in their endeavors and assured cooperation from NPL in this regard.
- CE also urged NPL employees to contribute in CSR activities as Volunteer

Training Students Enrolled

Sr. No.	Centre	Students	Commencement
1	Rangian	15	Aug-12
2	Nalash Khurd	19	Nov-13
3	Sural Kalan	46	Feb-11
4	Badali Mai Ki	30	May-18
5	Salempur	33	Nov-17
6	Dhuman	23	Aug-17
7	Basantpura	25	Aug-17
8	Bhagrana	36	Sep-17
9	Bhateri	31	Oct-17
10	Uppal Heri	40	Feb-18
11	Bakshiwala Basti	46	Feb-18
1	Nalash Kalan	Shifted	Aug-13
2	Sadhror	Shifted	Apr-14
3	Mirzapur	Shifted	Aug-15
4	Sindhran	Shifted	Aug-15
5	Sarai Banjara	Shifted	Aug-16
6	Harna	Shifted	Nov-13
7	Jansua	Shifted	Aug-15
8	Niamatpur	Shifted	Aug-15
		344	

Old Shifted

Shagan Scheme Case Processed

Month	Beneficiaries	Amount
April	14	2.94
May	4	0.84
June	10	2.10
July	2	0.42
August	8	1.68
September		
October		
November		
December		
January		
February		
March		

Female Child Scheme Case Processed

Month	Beneficiaries	Amount
April	5	1.05
May	7	1.47
June	0	0
July	22	4.62
August	8	1.68
September		
October		
November		
December		
January		
February		
March		

Support for Cancer Check up Camp

NPL extended support to village panchayat Rangian for conducting Cancer check up which to be held on 7th Oct (Sunday) in association with World Cancer Care Charitable Trust. This camp will benefit appox 1200 persons from 15 villages.

Job Fair- NSIC

NSIC- Rajpura (Enterprise of Center Govt.) organized a Job Fair aiming to facilitate the Youth for Job opportunities and self employment

Support Classes – New Intervention

Support Classes (remedial center) is based on planned and structured educational activities and programmes for primary & middle school children in the age group of 8-18 years, leading to improve specific learning outcomes of children who are slow learners in subjects specially Math's and English.

- 25 candidates called on for written test and interview
- 2 candidates selected for village Mirzapur and village Dadu Mazra

1. Written Test - Measurement of academic proficiency (Math & English) of candidates on the syllabus of 10th class
2. Interview

Marketing of SHG Products

- NPL Facilitated Rangian Self Groups by providing them space (Requesting the Mandir Management) for Stall to sale their products at Historic Mandir Nalash.

SHG Monthly Meeting

Monthly meetings are being held with all SHGS for their necessary guidance and record keeping. Monthly Meeting Calendar has been developed.

FORMATION OF NEW SHGs

Sr.No	Village	Nos	SHG
1	Sural Kalan	01	▪ Simrat
2	Bakshiwala	01	▪ Naman
3	Dhuman	01	▪ Khalsa

Training Students Enrolled

Sr. No.	Centre	Students	Commencement
1	Rangian	17	Aug-12
2	Nalash Khurd	21	Nov-13
3	Sural Kalan	45	Feb-11
4	Badali Mai Ki	28	May-18
5	Salempur	33	Nov-17
6	Dhuman	23	Aug-17
7	Basantpura	27	Aug-17
8	Bhagrana	36	Sep-17
9	Bhateri	31	Oct-17
10	Uppal Heri	40	Feb-18
11	Bakshiwala Basti	42	Feb-18
1	Nalash Kalan	Shifted	Aug-13
2	Sadhror	Shifted	Apr-14
3	Mirzapur	Shifted	Aug-15
4	Sindhran	Shifted	Aug-15
5	Sarai Banjara	Shifted	Aug-16
6	Harna	Shifted	Nov-13
7	Jansua	Shifted	Aug-15
8	Niamatpur	Shifted	Aug-15
		343	
	Old	New	Shifted

Annexure-11

Ambient Air Quality Monitoring Results

Eco Laboratories & Consultants Pvt. Ltd.
NABL / MOEF / PPCB / HSPCB / BIS approved Laboratory
ISO - 9001 : 2015, 14001 : 2015 OHSAS-18001:2007
CIN : U74140PB2011PTC034739

ISO 9001:2015

TEST REPORT

Test Report No. :EL070718GA005 EC-U-19/10558		Page No. 1/2
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Distt Patiala , Rajpura-140101	
Work Order No. & Date	NPL/47000-04271 Dt.: 23/08/2016	
Type of Sample	Ambient Air	
Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	06/07/2018 to 07/07/2018	
Sampling Location	Near Loco Shed	
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements.	
Date of Receipt of Sample	07/07/2018	
Period of Analysis	07/07/2018 to 11/07/2018	
Date of Reporting	12/07/2018	
Testing Protocol	NAAQS 2009	
Environmental Condition	Clear Sky	

RESULTS

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
1	Particulate Matter (PM_{10})	$\mu g/m^3$	68	100	IS:5182 (P-23) 2006
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	35	60	Lab SOP EL/SOP/AA/Q/01,Issue No.03 & Dated 01.01.2016
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	11	80	IS:5182 (P-2) 2001
4	Nitrogen Oxides (as NO_2)	$\mu g/m^3$	21	80	IS:5182 (P-6) 2006
5	Ammonia (NH_3)	$\mu g/m^3$	35	400	Lab SOP EL/SOP/AAQ/02, Issue No. & Issue Date 03 & 01.01.16
6	Ozone (O_3)	$\mu g/m^3$	10	180	IS:5182 (Part-9)2006
7	Carbon Monoxide (CO)	mg/m^3	BDL(DL1.5)	04	Lab SOP EL/SOP/AAQ/03, Issue No.03 & Date 03 & 01.01.16
8	Lead (Pb)	$\mu g/m^3$	BDL (DL0.04)	1.0	IS:5182 (P-22) 2004
9	Arsenic (As)	ng/m^3	BDL(DL1)	06	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
10	Nickel (Ni)	ng/m^3	BDL(DL10)	20	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
11	Benzene (C_6H_6)	$\mu g/m^3$	BDL(DL2)	05	IS:5182 (P-11) 2006.

Not Valid for Consent Purpose

PTO

Test Report No. :EL070718GA005 EL-48-19/10558

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
12	Benzo Pyrene (BaP). Particulate Phase Only	ng/m^3	BDL(DL0.5)	01	IS:5182 (P-12) 2004
13	Mercury as particulate phase (HgP)	$\mu g/m^3$	BDL (DL0.001)	--	IS 5182 Part 23/ CPCB Method

Remarks (if any) BDL Below Detection Level; DL Detection Level
*Rainy season & rainfall was observed on previous day of sampling

Lab Incharge

End of Report

For Eco Laboratories & Consultants Pvt. Ltd.

Authorized Signatory

Eco Laboratories & Consultants Pvt. Ltd.
NABL / MOEF / PPCB / HSPCB / BIS approved Laboratory
ISO - 9001 : 2015, 14001 : 2015 OHSAS-18001:2007
CIN : U74140PB2011PTC034739
ISO 9001:2015

TEST REPORT

Test Report No. :EL070718GA007	Ecl-Lr-19/1058	Page No. 1/2
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Distt Patiala , Rajpura-140101	
Work Order No. & Date	NPL/47000-04271 Dt.: 23/08/2016	
Type of Sample	Ambient Air	
Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	06/07/2018 to 07/07/2018	
Sampling Location	Near Switch Yard	
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements.	
Date of Receipt of Sample	07/07/2018	
Period of Analysis	07/07/2018 to 11/07/2018	
Date of Reporting	12/07/2018	
Testing Protocol	NAAQS 2009	
Environmental Condition	Clear Sky	

RESULTS

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
1	Particulate Matter (PM_{10})	$\mu g/m^3$	62	100	IS:5182 (P-23) 2006
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	33	60	Lab SOP EL/SCP/AA/Q/01,Issue No.03 & Dated 01.01.2016
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	13	80	IS:5182 (P-2) 2001
4	Nitrogen Oxides (as NO_2)	$\mu g/m^3$	20	80	IS:5182 (P-6) 2006
5	Ammonia (NH_3)	$\mu g/m^3$	38	400	Lab SOP EL/SOP/AAQ/02, Issue No. & Issue Date 03 & 01.01.16
6	Ozone (O_3)	$\mu g/m^3$	12	180	IS:5182 (Part-9)2006
7	Carbon Monoxide (CO)	mg/m^3	BDL(DL1.5)	04	Lab SOP EL/SOP/AAQ/03, Issue No.03 & Date 03 & 01.01.16
8	Lead (Pb)	$\mu g/m^3$	BDL (DL0.04)	1.0	IS:5182 (P-22) 2004
9	Arsenic (As)	ng/m^3	BDL(DL1)	06	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
10	Nickel (Ni)	ng/m^3	BDL(DL10)	20	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
11	Benzene (C_6H_6)	$\mu g/m^3$	BDL(DL2)	05	IS:5182 (P-11) 2006.

Not Valid for Consent Purpose

PTO

PPCB-Ref. No. Lab/3230092
Dated-30.09.2011

Test Report No. :EL070718GA007 EL-479/1056

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
12	Benzo Pyrene (BaP), Particulate Phase Only	ng/m^3	BDL(DL0.5)	01	IS:5182 (P-12) 2004
13	Mercury as particulate phase (HgP)	µg/m^3	BDL (DL0.001)	--	IS 5182 Part 23/ CPCB Method

Remarks (if any) BDL Below Detection Level; DL Detection Level
*Rainy season & rainfall was observed on previous day of sampling

Not Valid for Consent Purpose

End of Report

Lab Incharge

For Eco Laboratories & Consultants Pvt. Ltd.

Authorized Signatory

Eco Laboratories & Consultants Pvt. Ltd.

NABL / MOEF / PPCB / HSPCB / BIS approved Laboratory
ISO - 9001 : 2015, 14001 : 2015 OHSAS-18001:2007
CIN : U74140PB2011PTC034739

ISO 9001:2015

PPCB Ref. No. Lab/3233892
Dated 30.7.2018

TEST REPORT

Test Report No. :EL070718GA004 EC-18-19/10557		Page No. 1/2
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Distt Patiala , Rajpura-140101	
Work Order No. & Date	NPL/47000-04271 Dt.: 23/08/2016	
Type of Sample	Ambient Air	
Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	06/07/2018 to 07/07/2018	
Sampling Location	Near NDCT	
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements.	
Date of Receipt of Sample	07/07/2018	
Period of Analysis	07/07/2018 to 11/07/2018	
Date of Reporting	12/07/2018	
Testing Protocol	NAAQS 2009	
Environmental Condition	Clear Sky	

RESULTS

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
1	Particulate Matter (PM_{10})	$\mu g/m^3$	70	100	IS:5182 (P-23) 2006
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	38	60	Lab SOP EL/SOP/AA/Q/01,Issue No.03 & Dated 01.01.2016
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	12	80	IS:5182 (P-2) 2001
4	Nitrogen Oxides (as NO_2)	$\mu g/m^3$	20	80	IS:5182 (P-6) 2006
5	Ammonia (NH_3)	$\mu g/m^3$	34	400	Lab SOP EL/SOP/AAQ/02, Issue No. & Issue Date 03 & 01.01.16
6	Ozone (O_3)	$\mu g/m^3$	11	180	IS:5182 (Part-9)2006
7	Carbon Monoxide (CO)	mg/m^3	BDL(DL1.5)	04	Lab SOP EL/SOP/AAQ/03, Issue No.03 & Date 03 & 01.01.16
8	Lead (Pb)	$\mu g/m^3$	BDL (DL0.04)	1.0	IS:5182 (P-22) 2004
9	Arsenic (As)	ng/m^3	BDL(DL1)	06	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
10	Nickel (Ni)	ng/m^3	BDL(DL10)	20	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
11	Benzene (C_6H_6)	$\mu g/m^3$	BDL(DL2)	05	IS:5182 (P-11) 2006.

Not Valid for Consent Purpose

PTO

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

Test Report No. :EL070718GA004 EC-18-191/0557 Page No. 2/2

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
12	Benzo Pyrene (BaP), Particulate Phase Only	ng/m^3	BDL(DL0.5)	01	IS:5182 (P-12) 2004
13	Mercury as particulate phase (HgP)	µg/m^3	BDL (DL0.001)	--	IS 5182 Part 23/ CPCB Method

Remarks (if any) BDL Below Detection Level; DL Detection Level
*Rainy season & rainfall was observed on previous day of sampling

Not Valid for Consent Purpose

End of Report

Lab Incharge

For Eco Laboratories & Consultants Pvt. Ltd.

Authorized Signatory

Eco Laboratories & Consultants Pvt. Ltd.

NABL / MOEF / PPCB / HSPCB / BIS approved Laboratory

ISO - 9001 : 2015, 14001 : 2015 OHSAS-18001:2007

CIN : U74140PB2011PTC034739

ISO 9001:2015

PPCB-Ref. No. Lab/3230892
Dated-30.09.2011

TEST REPORT

Test Report No. :EL070718GA006 EC-18-19/10559	Page No. 1/2
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Distt Patiala , Rajpura-140101
Work Order No. & Date	NPL/47000-04271 Dt.: 23/08/2016
Type of Sample	Ambient Air
Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	06/07/2018 to 07/07/2018
Sampling Location	Near Storm Water Sump
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements.
Date of Receipt of Sample	07/07/2018
Period of Analysis	07/07/2018 to 11/07/2018
Date of Reporting	12/07/2018
Testing Protocol	NAAQS 2009
Environmental Condition	Clear Sky

RESULTS

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
1	Particulate Matter (PM_{10})	$\mu g/m^3$	65	100	IS:5182 (P-23) 2006
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	38	60	Lab SOP EL/SOP/AA/Q/01,Issue No.03 & Dated 01.01.2016
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	10	80	IS:5182 (P-2) 2001
4	Nitrogen Oxides (as NO_2)	$\mu g/m^3$	19	80	IS:5182 (P-6) 2006
5	Ammonia (NH_3)	$\mu g/m^3$	36	400	Lab SOP EL/SOP/AAQ/02, Issue No. & Issue Date 03 & 01.01.16
6	Ozone (O_3)	$\mu g/m^3$	11	100	IS:5182 (Part-9)2006
7	Carbon Monoxide (CO)	mg/m^3	BDL(DL1.5)	04	Lab SOP EL/SOP/AAQ/03, Issue No.03 & Date 03 & 01.01.16
8	Lead (Pb)	$\mu g/m^3$	BDL (DL0.04)	1.0	IS:5182 (P-22) 2004
9	Arsenic (As)	ng/m^3	BDL(DL1)	06	Lab SOP No EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
10	Nickel (Ni)	ng/m^3	BDL(DL10)	20	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
11	Benzene (C_6H_6)	$\mu g/m^3$	BDL(DL2)	05	IS:5182 (P-11) 2006.

Not Valid for Consent Purpose

PTO

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

Test Report No. :EL070718GA006 EL-18-19/10559					Page No. 2/2
S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
12	Benzo Pyrene (BaP), Particulate Phase Only	ng/m^3	BDL(DL0.5)	01	IS:5182 (P-12) 2004
13	Mercury as particulate phase (HgP)	$\mu g/m^3$	BDL (DL0.001)	--	IS 5182 Part 23/ CPCB Method

Remarks (if any) BDL Below Detection Level; DL Detection Level
*Rainy season & rainfall was observed on previous day of sampling

Not Valid for Consent Purpose

End of Report

Lab Incharge

For Eco Laboratories & Consultants Pvt. Ltd.

Authorized Signatory

Eco Laboratories & Consultants Pvt. Ltd.
NABL / MOEF / PPCB / HSPCB / BIS approved Laboratory
ISO - 9001 : 2015, 14001 : 2015 OHSAS-18001:2007
CIN : U74140PB2011PTC034739

ISO 9001:2015

TEST REPORT

Test Report No. :EL070718GA008 EC-18-19/1056	Page No. 1/2
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Distt Patiala , Rajpura-140101
Work Order No. & Date	NPL/47000-04271 Dt.: 23/08/2016
Type of Sample	Ambient Air
Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	06/07/2018 to 07/07/2018
Sampling Location	Vill. Dadumajra
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements.
Date of Receipt of Sample	07/07/2018
Period of Analysis	07/07/2018 to 11/07/2018
Date of Reporting	12/07/2018
Testing Protocol	NAAQS 2009
Environmental Condition	Clear Sky

RESULTS

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
1	Particulate Matter (PM_{10})	$\mu g/m^3$	64	100	IS:5182 (P-23) 2006
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	33	60	Lab SOP EL/SOP/AA/Q/01,Issue No.03 & Dated 01.01.2016
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	9.1	80	IS:5182 (P-2) 2001
4	Nitrogen Oxides (as NO_2)	$\mu g/m^3$	16	80	IS:5182 (P-6) 2006
5	Ammonia (NH_3)	$\mu g/m^3$	39	400	Lab SOP EL/SOP/AAQ/02, Issue No. & Issue Date 03 & 01.01.16
6	Ozone (O_3)	$\mu g/m^3$	11	180	IS:5182 (Part-9)2006
7	Carbon Monoxide (CO)	mg/m^3	BDL(DL1.5)	04	Lab SOP EL/SOP/AAQ/03, Issue No.03 & Date 03 & 01.01.16
8	Lead (Pb)	$\mu g/m^3$	BDL (DL0.04)	1.0	IS:5182 (P-22) 2004
9	Arsenic (As)	ng/m^3	BDL(DL1)	06	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
10	Nickel (Ni)	ng/m^3	BDL(DL10)	20	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
11	Benzene (C_6H_6)	$\mu g/m^3$	BDL(DL2)	05	IS:5182 (P-11) 2006.

PTO

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

Test Report No. :EL070718GA008 EL-15-19/1056

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
12	Benzo Pyrene (BaP), Particulate Phase Only	ng/m^3	BDL(DL0.5)	01	IS:5182 (P-12) 2004
13	Mercury as particulate phase (HgP)	µg/m^3	BDL (DL0.001)	--	IS 5182 Part 23/ CPCB Method

Remarks (if any) BDL Below Detection Level; DL Detection Level
*Rainy season & rainfall was observed on previous day of sampling

Not Valid for Consent Purpose

End of Report

Lab Incharge

For Eco Laboratories & Consultants Pvt. Ltd.

Authorized Signatory

Eco Laboratories & Consultants Pvt. Ltd.
NABL / MOEF / PPCB / HSPCB / BIS approved Laboratory
ISO - 9001 : 2015, 14001 : 2015 OHSAS-18001:2007
CIN : U74140PB2011PTC034739

ISO 9001:2015

TEST REPORT

Test Report No. :EL070718GA010 EL-18-19/0563	Page No. 1/2
Customar	Nabha Power Limited PO Box 28 Near Village-Nalash Distt Patiala , Rajpura-140101
Work Order No. & Date	NPL/47000-04271 Dt.: 23/08/2016
Type of Sample	Ambient Air
Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	06/07/2018 to 07/07/2018
Sampling Location	Vill. Dabhali, Rajpura
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements.
Date of Receipt of Sample	07/07/2018
Period of Analysis	07/07/2018 to 11/07/2018
Date of Reporting	12/07/2018
Testing Protocol	NAAQS 2009
Environmental Condition	Clear Sky

RESULTS

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
1	Particulate Matter (PM_{10})	µg/m³	60	100	IS:5182 (P-23) 2006
2	Particulate Matter ($PM_{2.5}$)	µg/m³	32	60	Lab SOP EL/SOP/AA/Q/01,Issue No.03 & Dated 01.01.2016
3	Sulphur Dioxide (SO_2)	µg/m³	8.9	80	IS:5182 (P-2) 2001
4	Nitrogen Oxides (as NO_2)	µg/m³	17	80	IS:5182 (P-6) 2006
5	Ammonia (NH_3)	µg/m³	36	400	Lab SOP EL/SOP/AAQ/02, Issue No. & Issue Date 03 & 01.01.16
6	Ozone (O_3)	µg/m³	12	180	IS:5182 (Part-9)2006
7	Carbon Monoxide (CO)	mg/m³	BDL(DL1.5)	04	Lab SOP EL/SOP/AAQ/03, Issue No.03 & Date 03 & 01.01.16
8	Lead (Pb)	µg/m³	BDL (DL0.04)	1.0	IS:5182 (P-22) 2004
9	Arsenic (As)	ng/m³	BDL(DL1)	06	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
10	Nickel (Ni)	ng/m³	BDL(DL10)	20	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
11	Benzene (C_6H_6)	µg/m³	BDL(DL2)	05	IS:5182 (P-11) 2006.

Not Valid for Consent Purpose

PTO

PPCB-Ref. No. Lab/3233892
Dated-30.09.2011

Test Report No. :EL070718GA010 EC-18-19/10563 Page No. 2/2

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
12	Benzo Pyrene (BaP), Particulate Phase Only	ng/m^3	BDL(DL0.5)	01	IS:5182 (P-12) 2004
13	Mercury as particulate phase (HgP)	$\mu g/m^3$	BDL (DL0.001)	--	IS 5182 Part 23/ CPCB Method

Remarks (if any) BDL Below Detection Level; DL Detection Level
*Rainy season & rainfall was observed on previous day of sampling

Not Valid for Consent Purpose

End of Report

Lab Incharge

For Eco Laboratories & Consultants Pvt. Ltd.

Authorized Signatory

Eco Laboratories & Consultants Pvt. Ltd.

NABL / MOEF / PPCB / HSPCB / BIS approved Laboratory

ISO - 9001 : 2015, 14001 : 2015 OHSAS-18001:2007

CIN : U74140PB2011PTC034739

ISO 9001:2015

TEST REPORT

Test Report No. :EL070718GA009	EC-18-19/10569	Page No. 1/2
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Distt Patiala , Rajpura-140101	
Work Order No. & Date	NPL/47000-04271 Dt.: 23/08/2016	
Type of Sample	Ambient Air	
Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	06/07/2018 to 07/07/2018	
Sampling Location	Vill. Salempura, Rajpura	
Sampling Protocol	IS: 5182 (P-14) 2000, CPCB Guidelines and Customer's Requirements.	
Date of Receipt of Sample	07/07/2018	
Period of Analysis	07/07/2018 to 11/07/2018	
Date of Reporting	12/07/2018	
Testing Protocol	NAAQS 2009	
Environmental Condition	Clear Sky	

RESULTS

S.No.	Test Parameter	Units	Results	NAAQS 2009	Test Method
1	Particulate Matter (PM_{10})	$\mu g/m^3$	63	100	IS:5182 (P-23) 2006
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	35	60	Lab SOP EL/SOP/AAQ/01,Issue No.03 & Dated 01.01.2013
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	9	80	IS:5182 (P-2) 2001
4	Nitrogen Oxides (as NO_2)	$\mu g/m^3$	15	80	IS:5182 (P-6) 2005
5	Ammonia (NH_3)	$\mu g/m^3$	39	400	Lab SOP EL/SOP/AAQ/02, Issue No. & Issue Date 03 & 01.01.16
6	Ozone (O_3)	$\mu g/m^3$	10	180	IS:5182 (Part-9)2006
7	Carbon Monoxide (CO)	mg/m^3	BDL(DL1.5)	04	Lab SOP EL/SOP/AAQ/03, Issue No.03 & Date 03 & 01.01.16
8	Lead (Pb)	$\mu g/m^3$	BDL (DL0.04)	1.0	IS:5182 (P-22) 2004
9	Arsenic (As)	ng/m^3	BDL(DL1)	06	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
10	Nickel (Ni)	ng/m^3	BDL(DL10)	20	Lab SOP No. EL/SOP/AAQ/04, Issue No. & Issue Date 03 & 01.01.2016
11	Benzene (C_6H_6)	$\mu g/m^3$	BDL(DL2)	05	IS:5182 (P-11) 2006.

Not Valid for Consent Purpose

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PCB/TAH/Re-Lab/3238832
Dated:30.09.2011

Test Report No. :EL070718GA009 EC-U-1911/0569					Page No. 2/2
S.No.	**Test Parameter**	**Units**	**Results**	**NAAQS 2009**	**Test Method**
12	Benzo Pyrene (BaP), Particulate Phase Only	ng/m^3	BDL(DL0.5)	01	IS:5182 (P-12) 2004
13	Mercury as particulate phase (HgP)	$\mu g/m^3$	BDL (DL0.001)	--	IS 5182 Part 23/ CPCB Method

Remarks (if any) BDL Below Detection Level; DL Detection Level
*Rainy season & rainfall was observed on previous day of sampling

Not Valid for Consent Purpose

End of Report

For Eco Laboratories & Consultants Pvt. Ltd.

Lab Incharge

Authorized Signatory

Annexure-12

Report of Heavy Metals and Radioactive elements

Eco Laboratories & Consultants Pvt. Ltd.
CIN : U74140PB2011PTC034739
[A Govt. Approved, ISO 9001:2015, 14001 & OHSAS-18001:2007 certified & Approved by MOEF, PPCB]

TEST REPORT

Test Report No. :EL240918GS006 EC-18-19/11864		Page No. 1/1
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Dist Patiala , Rajpura-140101	
Work Order No. & Date	NPL/47000-06931 Dt.: 18/09/2018	
Type of Sample	Coal	
Mode of Collection of Sample	Sampling by laboratory	
Date of Sampling	24/09/2018	
Sampling Location	From Coal Pile	
Packing, Markings, Seal & Quantity	Poly Bag Marked 'Coal' 1kg approx.	
Date of Receipt of Sample	24/09/2018	
Period of Analysis	18/10/2018 to 19/11/2018	
Date of Reporting	19/11/2018	
Sample Observation	--	

RESULTS

S.No.	Test Parameter	Unit	Results	Test Method
1	Alpha emitters*	Bq/kg	Not Detected	APHA 23rd. Edn. 7110B Followed by Radiation Counting System
2	Beta emitters*	Bq/kg	Not Detected	APHA 23rd. Edn. 7110B Followed by Radiation Counting System
3	Gama emitters*	Bq/kg	Not Detected	APHA 23rd. Edn. 7110B Followed by Radiation Counting System

Remarks (if any) Please refer terms & conditions overleaf.
*Subcontracted

End of Report

For Eco Laboratories & Consultants Pvt. Ltd.

Lab Incharge

Authorized Signatory
Dr. Roopak Kumar

Format No. F/5.10-01/01

Eco Laboratories & Consultants Pvt. Ltd.
CIN : U74140PB2011PTC034739
[A Govt. Approved, ISO 9001:2015, 14001 & OHSAS-18001:2007 certified & Approved by MOEF, PPCB]

TEST REPORT

Test Report No. :EL240918GS003	Page No. 1/1
Customer	Nabha Power Limited PO Box 28 Near Village-Nalash Dist Patiala , Rajpura-140101
Work Order No. & Date	NPL/47000-06931 Dt.: 18/09/2018
Type of Sample	Coal
Mode of Collection of Sample	Sampling by laboratory
Date of Sampling	24/09/2018
Sampling Location	From Coal Pile
Packing, Markings, Seal & Quantity	Poly Bag Marked 'Coal' 1kg approx.
Date of Receipt of Sample	24/09/2018
Period of Analysis	24/09/2018 To 28/09/2018
Date of Reporting	28/09/2018
Sample Observation	--

RESULTS

S.No.	Test Parameter	Unit	Results	Test Method
1	Lead as Pb	mg/kg	BDL(DL-0.1)	Lab SOP No. EL/SOP/SS/23
2	Arsenic as As	mg/kg	BDL(DL-0.1)	Lab SOP No. EL/SOP/SS/23
3	Total Chromium as Cr	mg/kg	BDL(DL-0.1)	Lab SOP No. EL/SOP/SS/23
4	Mercury as Hg	mg/kg	BDL(DL-0.5)	Lab SOP No. EL/SOP/SS/23

Remarks (if any) BDL-Below Detection Limit; DL-Detection Limit
Please refer terms & conditions overleaf.

Not Valid for Consent Purpose

End of Report

For Eco Laboratories & Consultants Pvt. Ltd.

Lab Incharge

Authorized Signatory
Dr. Roopak Kumar

Format No. F/5.10-01/01