



एसजेवीएन लिमिटेड

मिनी-रत्न शिड्यूल 'A' पीएसयू
निगमित पर्यावरण विभाग
ISO 9001:2015 Certified

कार्यालय: मुख्य महाप्रबंधक,
निगमित पर्यावरण विभाग,
शक्ति सदन, शनान,
जिला शिमला, हिमाचल प्रदेश -171006
टेलीफोन न.: 0177-2660180
ईमेल: sjvn.ced@sjvn.nic.in

संख्या: SJVN/CHQ/ENV/F-27/ २२४

दिनांक: २२/११/२०२०

सेवा में,
अतिरिक्त प्रधान मुख्य वन संरक्षक (सी),
पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय,
क्षेत्रीय कार्यालय (NCZ), 25, सुभाष रोड,
देहरादून - 248001,
ई-मेल: moef.ddn@gmail.com

Sub: Six Monthly Monitoring Report on Compliance to Environmental Aspects (For period April, 2020- September, 2020) i.r.o Naitwar Mori HEP (60 MW), Uttarakhand.


Ref: EC letter No. J-12011/16/2010/IA.I, June 16, 2016 (Issued by Ministry of Environment, Forest & Climate Change- GoI)

Sir

Your kind attention is invited to above referred endorsement vide which Naitwar Mori Hydroelectric Project (60 MW) of SJVN in Uttarkashi District (Uttarakhand) is granted Environment Clearance. Submission of six monthly compliance report is required by Environment Clearance. Further, as per MoEF&CC vide notification dated 26.11.2018, half yearly compliance reports are to be submitted in soft copies only. Therefore, Six Monthly Monitoring Report on compliance to Environmental Aspects (for the period ending September 2020) is submitted for your kind information, please.

संलग्नक: यथोपरि।

सधन्यवाद,

भवदीय,
एसजेवीएन लिमिटेड के लिए,

(मुख्य महाप्रबंधक)

प्रतिलिपि (केवल ईमेल के माध्यम से):

1. उप महानिदेशक वन (सी), पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, क्षेत्रीय कार्यालय (NCZ), 25, सुभाष रोड, देहरादून - 248001, ई-मेल: moef.ddn@gov.in
2. प्रभारी, केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी), जोनल कार्यालय (उत्तर), पीआईसीयूपी भवन, विभूति खंड, गोमती नगर, लखनऊ - 226010 (यू.पी.). mscb.cpcb@nic.in, cpcb.lucknow@gmail.com
3. सदस्य सचिव, उत्तराखंड पर्यावरण संरक्षण और प्रदूषण नियंत्रण बोर्ड (UEPPCB), 29/20, नेमी रोड, देहरादून - 248001 (उत्तराखंड). spsubudhi@gmail.com, msukpcb@gmail.com

Six Monthly Monitoring Report on Compliance to Environmental Aspects (For Period Ending September, 2020)

A)	Name of Project	Naitwar Mori HEP (60 MW)
	Type of the Project	Hydroelectric
	Location	PO Mori, Tehsil Mori, District Uttarkashi, Uttarakhand.
	Contact Address	
	(a) Concerned Project Head	Head of Project, PO Mori, Tehsil Mori, District Uttarkashi, Uttarakhand, PIN 249128 Contact No. 01373-234370
	(b) Concerned Environment Division (Project)	Head (Environment), PO Mori, Tehsil Mori, District Uttarkashi, Uttarakhand, PIN 249128 Contact No. 01373-234308
	(c) Concerned Environment Division (Corporate)	Head (Environment), SJVN Corporate Headquarters, Shanan, Shimla, HP, PIN 171006 Contact No. 0177-2660198
	Environment Clearance	J-12011/16/2010/IA.I dated 16.06.16 and corrigendum issued vide even no. dated 07.08.18

PART – A: Specific Conditions

S.No.	Condition of Environment Clearance	Status
i.	The following Catchment Area Treatment (CAT) Plan as proposed in the EIA/EMP report (Chapter – 1 in the EMP dated February, 2011) and mentioned vide letter no. SJVN/AGM/NMHEP/PEC/11-431 dated 02.09.2011 shall be strictly implemented in consultation with Uttarakhand Forest Department. Major works shall be completed before impounding. The financial allocation of Rs. 769 lakhs for CAT plan implementation shall not be diverted for any other purpose. As per plan, the area of CAT is 3995.28 ha.	The amount, i.e. Rs.12.9666 Crores against implementation of CAT plan has been deposited by SJVN in CAMPA fund. An amount of about Rs. 210 Lakhs have been spent against CAT Plan till date. (As telephonically communicated by DFO, Tons Forest Division, Purola on 29.10.2020)
ii.	The R&R Benefits for the land losing households will be as per the National Rehabilitation and Resettlement Policy, 2010 of SJVNL as well as NRRP – 2007 whichever is higher. Adequate publicity of the compensation package of NRRP 2007/SJVNL R&R Policy 2010 shall be given in the affected villages. All R&R issues shall be completed before commissioning of the project.	R&R Plan of NMHEP is in line with the National Rehabilitation and Resettlement Policy (NRRP) – 2007. R&R Plan of NMHEP was notified in the Official Gazette of Uttarakhand on 04.11.2017 and the same was published in two daily newspapers in the local area

		before its implementation. Also, the same has been uploaded in the official website of District Uttarkashi. The copies of R&R Plan have also been provided in the office of SDM Purola, Tehsildar Mori, BDO Mori, Panchayat Pradhans and villagers.
iii.	A monitoring committee for R&R shall be constituted which must include representatives of project affected persons from SC/ST category and a women beneficiary.	The village-wise R&R/Grievance Redressal Committee has been constituted under the Chairmanship of ADM-cum-R&R Administrator, Uttarkashi comprising of SDM, BDO, SC/ST representative, Women representative, Panchayat Pradhan (representative of PAFs) and representatives of project management.
iv.	All the commitments made during the public hearing shall be fulfilled completely by the project proponent.	The commitments viz infrastructural development works, community development works, employment to the locals, hiring of local contractors, hiring of local vehicles, technical education to the local youth, merit scholarship schemes etc. made during public hearing have been included in R&R Plan of the project which being implemented through R&R administrator (i.e. ADM-Uttarkashi) appointed by Govt.
v.	Consolidation and compilation of the muck shall be carried out only in the designated muck dumping sites as submitted in the EIA/EMP Report & in the reply submitted in February, 2011. As per the proposed muck disposal plan, out of the 7,11,240 m ³ muck generated 30-40% will be utilized as construction material and remaining 4,29,583 m ³ will be dumped at the 2 designated disposal areas in 4.5 ha. The identified muck dumping sites shall be at least 30 m horizontally away from high flood level (HFL).	As on 30.09.2020, total 6.97 lakh m ³ muck has been generated out of which 4.35 lakh m ³ has been dumped in 2 number designated sites and remaining has been utilized for developmental activities within the project area. These dumping sites are located 30 m horizontally away from HFL of river Tons.
vi.	A minimum environmental flow of 3.55 cumecs i.e. average river discharge in the 4 consecutive leanest months in the 90% dependable year shall be have to be maintained. However, 5.0 cumecs shall be maintained as environmental flow during	The minimum environment flow as specified herein shall be maintained during operation stage of the project.

	September – October and March – April months. Monsoon flow shall be 30% of the total Monsoon discharge.	
vii.	Continuous monitoring system for the flow rate measurement shall be installed and data be displaced at appropriate site for information of civil society and stakeholders. Six monthly results shall be submitted to the concerned Regional Office of the Ministry and SPCB	Shall be ensured during operation stage of the project.
viii.	The Fishery Conservation & Management Plan as proposed in the EMP & in the reply submitted in August, 2011 shall be implemented completely in consultation with the Fisheries Department, Government of Uttarakhand. As proposed, the construction of fish ladder shall also be taken up and allocated budget of Rs. 1.00 Crore shall not be diverted for any other purpose.	The only mitigation measure suggested in the Fishery Management Plan is regarding providing a Fishway in the barrage structure. Accordingly, provision for the same has been kept in the barrage structure against allocated budget of Rs. 1.0 Crores.
ix.	Real time telemetry and data acquisition system including all weather hydro meteorological stations shall be installed for in-flow monitoring and advance flood warning. Advance flood warning and advance communication systems shall be installed in consultation with the downstream authorities.	A hydro meteorological station has been set up at the SJVN Site Office near Barrage. It measures the ambient temperature, wind speed, relative humidity, wind direction, rainfall and dew point. Further, advance flood warning system shall be setup during operation stage of the project.
x.	As proposed in the EMP, the Compensatory Afforestation Programme on 79.76 ha of land with soil binding species @ 3000 plants/ha and broad leaved species @ 2000 plants/ha with the help of State Forest Department in the degraded forest area shall be strictly taken-up. The allocated grants of Rs.3.74 Crores shall not be diverted for any other purpose.	As part of diversion of forest land, compensatory afforestation over 80.00 ha of civil soyam and forest land has been proposed at a cost of Rs.1,84,24,160/-. The said amount has been deposited with Compensatory Afforestation Fund (CAF) Uttaranchal as part of compensatory levies for compliance to Stage – I Forest Clearance. DFO, Tons Div. vide his letter No. 2220/3-5, dated 02.06.2020 has informed that all compensatory afforestation works have been completed in an area of 80.00 hectare land (in civil soyam 15.32 hectare and reserve forest land 65 hectare)
xi.	Greenbelt development along the approach roads, residential areas, office complex,	Construction work at project site has started in March 2018 and

	barrage site and along the reservoir as proposed in the EIA/EMP with 50 different plant species shall be undertaken immediately and allocated grant of Rs. 44 lakhs shall not be diverted for any other purpose.	work is in progress at various locations. 2430 nos. of various species of tree/grass saplings like, <i>jackranda</i> , <i>gulmohar</i> , <i>alstonia</i> , <i>silver oak</i> , <i>kachnar</i> , <i>deodar</i> , <i>pomegranate</i> , <i>local bamboo</i> , etc. have been planted in consultation with State Forest Department at appropriate locations in the project area. Plantation of remaining saplings is being taken up in synchronization with construction work.
xii.	The Biodiversity Conservation and Management Plan shall be taken-up strictly as outlined in the EIA/EMP report and implemented in consultation with the State Forest Department. The allocated grants of Rs. 43 lakhs shall not be diverted for any other purpose. A report of implementation shall be included in the six monthly compliance report to be submitted to the Ministry.	The detailed Biodiversity Conservation and Management Plan for Rs. 43.00 lakh has been prepared by CF Yamuna Circle, Dehradun & DFO, Tons Forest Division, Purola. Accordingly, SJVN has deposited Rs. 43.00 lakh to DFO Tons, Forest Division, Purola on 22.10.2019 for implementation.
xiii.	Equipment likely to generate high noise levels shall meet the ambient noise standards as notified under the Noise Pollution (Regulation and Control) Rules, 2000 as amended in 2010 under the Environment (Protection) Act, 1986 (EPA). For these necessary insulators etc. may be ensured.	Noise level data is got monitored by SJVN from Pollution Control Research Institute, BHEL, Haridwar from 20.06.2018 onwards. The noise level data is being submitted to Regional Office, MoEF&CC Dehradun as part of six-monthly monitoring report. All high noise generating equipments have been provided with mufflers as per manufacture's specification. Noise level data monitored on 25.09.2020 by SJVN from Pollution Control Research Institute, BHEL, Haridwar is attached as Annexure-I.
xiv.	Any other clearance from any other organization/department, if required shall be obtained before commencing the project.	Condition is being complied with.
xv.	As outlined in the report submitted dated 29.12.2011 for an amount of Rs.6.26 crores shall be spent for the Local Area Development in the project	The Rehabilitation and Resettlement Plan of NMHEP, consisting of infrastructural and community development works is

		<p>being implemented through R&R Administrator i.e. ADM Uttarkashi who is appointed by Govt. of Uttarakhand.</p> <p>In this regard, a budget of Rs.963 lacs has been deposited with R&R Administrator, Uttarkashi out of which an amount of Rs. 298.76 lacs have been incurred as follows:</p> <p>a) Rehabilitation grant – Rs.163.26 lacs b) Subsistence allowance – Rs.65.30 lacs c) Health care – Rs.30.00 lacs d) Educational facilities – Rs.4.81 Lacs e) Recreational Facilities – Rs.4.60 Lacs. f) Widow Pension : 14.58 Lacs g) Community Development activity - Rs.16.20 Lacs.</p>
xvi.	Two openings in the dam shall be kept to ensure environmental flow. One opening shall be for minimum environmental flow of 3.55 cumecs which will be un-gated and other will be gated which will be opened during the months when higher environmental flow of 5 cumecs is released. During the months of September – October and March – April, both the openings will discharge 5 cumecs.	Suitable provisions are being made in the Barrage structure to ensure environmental flow releases.
xvii.	Besides keeping environmental flows, fish hatcheries will be developed for stocking of fingerlings, both upstream and downstream of the dam site.	State Fisheries Department had been requested to provide a plan for development of fish hatcheries for stocking of fingerlings from 2009 onwards. In this regard, Director (Fisheries) vide letter dated 12.01.2018 and 23.03.19 has instructed Asst. Director (Fisheries) for identifying suitable land for development of trout hatcheries. Asst. Director (Fisheries) vide letter no. 422 dated 27.10.2020 has communicated that they have physically surveyed a land portion for development of Fish hatchery.
xviii.	Pension for elderly widows shall be increased to Rs.1500 per month	The provision of yearly pension @Rs.18,000/- (Rs. 1500/- pm) has been kept in the R&R Plan of

		NMHEP for the vulnerable group family head residing in the affected village. In this regard, 41 widow ladies have been covered under this provision and provided monthly pension of Rs. 1500/- pm w.e.f. Nov. 2017.
xix.	The public toilets (130 nos.) with septic tanks shall be provided and maintained in each of the affected villages. A sum of Rs.61 lakhs shall be kept separately for this purpose and shall not be diverted for any other purpose.	The list of beneficiaries for the construction of toilets in the Project Affected Villages have been finalized through BDO Mori and further submitted to ADM-cum-R&R Administrator, Uttarkashi. ADM-cum-R&R Administrator, Uttarkashi has further instructed Rural Works Dept. Uttarkashi for preparation of estimates, tendering process etc.
xx.	System and facility for solid waste management shall also be provided in the project affected villages.	Project has provided waste collection bins in the Project Affected Village i.e. <i>Bainol, Gainchwan & Naitwar</i> villages, amounting to around Rs. 1 lakh. Project has developed waste collection pits in Bainol Village for an award amount of INR 58,000/-.
xxi.	Alternate sources for drinking water shall be provided to the affected villages and other villages in the vicinity, in case, natural springs are affected due to construction of the project. This shall be carried out in consultation with the State Irrigation and Public Health Department.	Noted. If it is technically established that the drinking water resources are dried up due to project works, the same shall be restored and water supply schemes shall be provided by SJVN on instructions of State Govt./Central Govt. through State Water Supply Dept. Nevertheless, drinking water supply schemes have already been provided in the Project Affected Villages viz. Bainol, Naitwar and Gainchwan gaon as a CSR initiative through SJVN foundation.
xxii.	For planting of trees and other biological measures, indigenous and among them endemic tree species should be preferred. Turfing may be done by perennial grasses in consultation with a Horticulturist. Proponents themselves may take this responsibility under the guidance of a scientist/expert in vegetative propagation	Construction work at project site commenced in March 2018 and work is in progress. Plantation and turfing activities depicted herein shall be undertaken in consultation with scientists/experts after completion of the construction activities of the

	and mass multiplication (tissues culture)	Project.
xxiii.	A specialist in reproduction biology of fishes, CIFRI should study the viable and feasible alternatives on the blocked migratory movement of fish species like <i>Schizothorax richardsonii</i> , <i>Tor putitora</i> , <i>Tor tor</i> , etc. due to construction of the dam so that these species would not become locally extinct.	The said study has been undertaken by CIFRI, Kolkatta. The interim report has been submitted by CIFRI to SJVN and has been finalized by SJVN on 31.01.2020.

PART – B: General Conditions

(i.)	Adequate arrangement for providing free fuel like kerosene/wood/LPG shall be made at project cost for the labour engaged in the construction work so that indiscriminate felling of trees is prevented.	To avoid indiscriminate felling of trees, canteen facility is being provided by Contractors to the labour force engaged in construction activity of the project.
(ii)	Medical facilities as well as recreational facilities shall also be provided to the labourers.	Dispensary has been provided at Contractor facility. Further, First Aid kits along-with trained staff provided at Barrage, Adit-1 and Power house.
(iii)	All the labourers to be engaged for construction works shall be thoroughly examined by health personnel and adequately treated before issuing them work permit.	Being complied.
(iv)	No fugitive dust emissions should be observed at the construction sites. Water sprinkling arrangements shall be made to suppress the fugitive emissions.	All measures suggested in the EIA/EMP report including sprinkling of water are being undertaken at project site.
(vi)	Potable drinking water and proper sanitary facilities should be provided for the labour force and the local area people.	Being complied
(vii)	Restoration of construction area including dumping site of excavated materials shall be ensured by leveling, filling up of burrow pits, landscaping etc. The area should be properly treated with suitable plantation.	Construction work at project site has started in March 2018 and work is in progress at various locations. Restoration of construction area and dumping sites shall be done after completion of project components and in synchronization with construction activities.
(viii)	Financial provision shall be made in the total budget of the project for implementation of the above suggested safeguard measures.	Financial provision of Rs. 32.48 Crores towards implementation of Environment Management Plan has been kept in the total budget of the project.
	Status on implementation of EMP?	Expenditure on EMP: INR 31.65 crores.

Budgetary provision on EMP for INR 32.48 crores shall be exclusively spent on the purpose.	Details on physical and financial progress on stipulated subheads of EMP is bulleted below,
<ul style="list-style-type: none"> CAT Plan (INR 7.69 crores) (Revised Cost: INR12.9666 crores)	Amount Deposited: INR 12.9666 crores. Utilization: State Forest Department has utilized approx. INR 75 lakhs for the development of nurseries.
<ul style="list-style-type: none"> R&R Plan (INR 13 crores) (Revised Cost: INR14.45 crores)	Amount Deposited with ADM, Uttarkashi: INR 9.63 crores.
<ul style="list-style-type: none"> CA and NPV for Forest Land Transfer (INR 3.74 crores) 	Amount deposited Against CA: INR1,84,24,160/- Against NPV: INR 3,74,47,790/-
<ul style="list-style-type: none"> Greenbelt, Landscape and Restoration Plan (INR 44 lakhs) 	<i>Expenditure done: INR 6.91 lakhs</i>
<ul style="list-style-type: none"> Reservoir Rim Treatment Plan (INR 22.09 lakhs) 	Nil
<ul style="list-style-type: none"> Fisheries Management Plan (Provision made in DPR) (INR 1 crores) 	Nil
<ul style="list-style-type: none"> Water, Air and Noise Quality Management Plan (INR 20 lakhs) 	The provision mentioned for said activity in the EMP is being taken care by main contractor as part of the contract document No. II of IV, para 2.3.14.1- control of Air Pollution and para 2.3.14.2 – control of noise pollution.
<ul style="list-style-type: none"> Muck Disposal Plan (INR 3.8780 crores) 	INR 2.886 crores.
<ul style="list-style-type: none"> Restoration Plan for Quarry Sites (Zero Amount) 	Quarry comprises of RBM (River Bed Material) only.
<ul style="list-style-type: none"> Health Management Plan (Provision made in R&R) (INR 40 lakhs) 	INR 30 lakh (One Ambulance and miscellaneous medical aids provided to PHC Mori) under Health Management Plan of R&R provision.
<ul style="list-style-type: none"> Dam Break Modelling & Disaster Management Plan (INR 52.60 lakhs) 	Nil
<ul style="list-style-type: none"> Environmental Awareness Plan (INR 9 lakhs) 	Expenditure done: INR 2.98 lakhs (approx.) Details: 1. INR 1 lakh spent on awareness (June 05, 2017, locality and forest officials at Mori; August, 2017, cleanliness drive at Mori; October, 2017, <i>swatchhta</i> seva in schools and dust bin distribution in Mori

		Market.) 2. INR 98,000/- Jute carry bags distributed (PPR-246/19, February 07, 2019). 3. INR 1 lakh spent on awareness programmes through M/s HIMCON (July 2019-March 2020).
	<ul style="list-style-type: none"> Environmental Monitoring Plan (INR 36.50 lakhs) 	INR 3.75 lakhs. Details: Monitoring being done by M/s Pollution Control Research Institute (BHEL), Haridwar. Latest monitoring done in September, 2020.
	The project proponent shall also submit six monthly compliance reports of the stipulated EC conditions (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC and State Pollution Control Board. Both monitoring report and compliance report shall be up-loaded on the website of the Proponent.	Six-monthly compliance reports are being regularly submitted to MoEF&CC Regional Office (North-Central Zone), Dehradun, CPCB Zonal Office (North), Lucknow and Uttarakhand Environment Protection and Pollution Control Board, Dehradun and also uploaded on our website www.sjvn.nic.in . Yes, latest six-monthly report submitted by project to MoEF&CC on May 26, 2020.
5.	The project proponent shall provide full cooperation and all required documents/data to the officials from concerned Regional Office of the Ministry who would be monitoring the implementation of environmental safeguards.	Full cooperation will be provided to officials from concerned Regional office of MoEF&CC during monitoring of the project.
6.	The responsibility of implementation of environmental safeguards rests fully with the M/s Satluj Jal Vidyut Nigam Ltd. And Government of Uttarakhand.	Noted
7.	Besides the above stated conditions, the project proponent and Government of Uttarakhand shall also implement all other environmental safeguards, as proposed in the EIA/EMP report and other reports from time to time.	All environmental safeguard measures proposed in the EIA/EMP report are being implemented.
8.	The Environmental Management Plan shall be strictly adhered to and a sum of Rs. 32.48 crores, the budgetary provisions for implementation of EMP shall not be diverted for any other purpose.	Financial provision of Rs. 32.48 Crores towards implementation of Environment Management Plan shall not be diverted for any other purpose. At present a total of Rs. 31.65 crores have been spent so far on implementation of EMP.
9.	Any change in the scope of the project shall be intimated to the Ministry and	There is no change in the scope of the project.

	fresh approval if required, shall be taken from the Ministry.	
10.	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary and to take action including	Noted
11.	This clearance letter is valid for a period of 10 years from the date of issue of this letter for commencement of construction work.	The major work for the project has been awarded on 05.12.17 and construction activities have commenced from March 2018 onwards.
12.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban local body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the Proponent.	The condition has been complied with. The clearance letter is available on company website www.sjvn.nic.in .
13.	A multi-disciplinary committee for monitoring the implementation of environmental safeguards during construction shall be constituted by the Proponent in consultation with the Ministry. The proponent shall suggest the members for approval of the Ministry. Proponent shall organize six monthly meetings of the Committee and submit the monitoring report to the Ministry.	A Multi-Disciplinary Committee for Naitwar Mori HE Project has been constituted vide MoEF&CC letter no. J-12011/16/2010-IA.I dated 09.07.2018. The 2nd meeting of MDC was held on 18.01.2020.
14.	The proponent should advertise at least two local newspapers widely circulated in the region around the project. One of which shall be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letter area available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment, Forest Climate Change at http://www.envfor.nic.in	Complied
15.	After 5 years of the commissioning of the project, a study shall be undertaken regarding impact of the project on the environment and downstream ecology. The study shall be undertaken by an independent agency, decided in	Condition shall be complied during operation stage of the project.

	consultation with the Ministry.	
16.	The proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitoring data (both in hard copies as well as e-mail) to the respective Regional office of MoEF&CC and Zonal office of CPCB and the SPCB.	<p>Six-monthly compliance reports are being regularly submitted to MoEF&CC Regional Office (North-Central Zone), Dehradun, CPCB Zonal Office (North), Lucknow and Uttarakhand Environment Protection and Pollution Control Board, Dehradun and also uploaded on our website www.sjvn.nic.in.</p> <p>The last compliance report for the period ending March 2020 was submitted on 26.05.2020</p> <p>Environment Monitoring results carried out during the period of compliance are enclosed as Annexure-II.</p>
17.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if referred, within a period of 30 days from the date of issue, as prescribed under Section – 10 of the National Green Tribunal Act, 2010.	To the best of our knowledge, no such appeal has been made with National Green Tribunal against Environment Clearance issued to Naitwar Mori HE Project.



Annexure-I

प्रदूषण नियन्त्रण अनुसंधान संस्थान

भारत हेवी इलेक्ट्रिकल्स लिमिटेड, रानीपुर, हरिद्वार (उत्तराखण्ड) -249403
POLLUTION CONTROL RESEARCH INSTITUTE
(A Govt. of India – UNDP / UNIDO Project)
BHARAT HEAVY ELECTRICALS LIMITED
RANIPUR, HARIDWAR (U.K.) - 249 403
(Approved Lab under Environment (Protection) Act, 1986; EIA Consultancy by NABET, QCI)



ISO 9001-2008 OHSAS 18001-2007

TEST REPORT AMBIENT NOISE MONITORING

Lab. Ref.:PCRI: Air & Noise: 2020-21 :816-819
Date: 05.10.2020

A. GENERAL INFORMATION:

1	Name and address of Plant	:	M/s SJVN Limited, Naitwar-Mori Hydro Electric Project, Mori, District- Uttarkashi, Uttarakhand
2	Work Order No.	:	19-0102-0-681
3	Date of sampling	:	24-09-2020 To 25-09-2020 (Day Time)
4	Instrument used	:	Sound Level Meter (Cygnet)
5	Duration of measurement	:	One Hour duration (At each location : Day Time)
6	Measurement carried out by	:	PCRI , B.H.E.L., Ranipur, Haridwar-U.K.

B. RESULTS OF NOISE MEASUREMENT:

All measurement in dB (A)

Sl. No.	Location	Measured Values	Allowable Limit (Day Time) Leq.
1.	Near Barrage Site Office	63	75 dB (A)
2.	Near Mining site	60	
3.	Near Power House Site Office	66	
4.	Near Adit-1 Office	63	

Leq. : Equivalent sound Pressure Level

Allowable Noise Level Limit: The Noise pollution (regulation and control) rules, 2000.

Issued by

(Ambrish Goel)

Addl. General Manager (PCRI)

अमरीश गोेल/AMBRISH GOEL
आगर प्रमुख/AGM, General Manager
प्रदूषण नियंत्रण अनुसंधान संस्थान
Pollution Control Research Institute
BHEL, H.E.L., RANIPUR

Services Offered : Monitoring of Air, Water, Noise & Solid Waste as per requirement of EP Act of CPCB & SPCB and providing Test reports. Environmental Impact Assessment, Environmental Audits reports

Remarks :- (1) This report refers only to the particular sample/job submitted for testing.
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Annexure-II

प्रदूषण नियंत्रण अनुसंधान संस्थान
भारत हेवी इलेक्ट्रिकल्स लिमिटेड, रानीपुर, हरिद्वार (उत्तराखण्ड) - 249403
POLLUTION CONTROL RESEARCH INSTITUTE

(A Govt. of India - UNDP / UNIDO Project)
BHARAT HEAVY ELECTRICALS LIMITED
RANIPUR, HARIDWAR (U.K.) - 249 403

(Approved Lab under Environment (Protection) Act, 1986; EIA Consultant by NABET, QCI)

TEST REPORT

Lab Reference No: TL200321-200322 Date: 14.10.2020
Indentor SJVN Limited, Naitwar-Mori Hydro Electric Project, Mori, Distt.
Uttarkashi (Uttarakhand) - 249128
Customer's Ref. No.: SJVN/NMHEP/LOA/Env./19-54 dt. 18.05.2019
Work Order No.: 19-0102-O-681
Sample Collected by: PCRI Staff Collection Date: 24.09.2020
Sample/Job: Water Samples of U/s of Barrage & D/s of Power House

PARAMETER	UNIT	OBTAINED VALUE		Standard Limits*
		U/s Barrage (200321)	D/s Power House (200322)	
Ammonical Nitrogen (as N)	mg/L	ND	ND	50
Arsenic (as As)	mg/L	ND	ND	0.2
BOD ₅ at 27°C	mg/L	1	1	30
Cadmium (as Cd)	mg/L	ND	ND	2.0
Chromium Hexavalent (as Cr ⁺⁶)	mg/L	ND	ND	0.1
Chromium Total (as Cr)	mg/L	ND	ND	2.0
COD	mg/L	4	5	250
Copper (as Cu)	mg/L	ND	ND	3.0
Colour	Hazen	15	20	-
Cyanide (as CN)	mg/L	ND	ND	0.2
Dissolved Phosphates (as P)	mg/L	0.18	0.22	5.0
Fluoride (as F)	mg/L	0.11	0.12	2.0
Free Ammonia (as NH ₃)	mg/L	ND	ND	5.0
Iron (as Fe)	mg/L	0.03	0.04	3.0
Lead (as Pb)	mg/L	ND	ND	0.1
Manganese (as Mn)	mg/L	ND	0.01	2.0
Mercury (as Hg)	mg/L	ND	ND	0.01
Nickel (as Ni)	mg/L	ND	ND	3.0
Nitrate (as NO ₃)	mg/L	ND	0.81	10
Oil & Grease	mg/L	ND	ND	10

Contd..2

Signature
14/10/20

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PCRI/051

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POLLUTION CONTROL RESEARCH INSTITUTE
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BHARAT HEAVY ELECTRICALS LIMITED

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TEST REPORT

-Page 2-

PARAMETER	UNIT	OBTAINED VALUE		Standard Limits*
		U/s Barrage (200321)	D/s Power House (200322)	
Odour		Agreeable	Agreeable	-
pH	-	8.0	8.1	5.5-9.0
Phenols (as C ₆ H ₅ OH)	mg/L	ND	ND	1.0
Selenium (as Se)	mg/L	ND	ND	0.05
Sulphide (as S)	mg/L	ND	ND	2.0
Temperature	°C	10.1	10.2	shall not exceed 5°C above the receiving water temperature
Total Dissolved Solids	mg/L	108	118	-
Total Kjeldahl Nitrogen (as N)	mg/L	ND	ND	100
Total Residual Chlorine	mg/L	ND	ND	1.0
Total Suspended Solids	mg/L	46	50	100
Vanadium (as V)	mg/L	ND	ND	0.2
Zinc (as Zn)	mg/L	ND	0.02	5.0

ND - Not Detectable

*(SCHEDULE VI OF EPA, 1993) FOR DISCHARGE INTO INLAND SURFACE WATER.

S. Bhatnagar
(Dr. S. Bhatnagar) 14/10/20

Sr. Dy. General Manager (PCRI)

डा. एस. भटनागर/ Dr. S. Bhatnagar
वरिष्ठ महाप्रबन्धक/Sr. Dy. General Manager
Pollution Control Research Institute
प्रदूषण नियन्त्रण अनुसंधान संस्थान
BHEL, Ranipur, Haridwar

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RANIPUR, HARIDWAR (U.K.) - 249 403

(Approved Lab under Environment (Protection) Act, 1986; EIA Consultant by NABET, QCI)

TEST REPORT

Lab Reference No: TL200323-200324 Date: 14.10.2020
Indentor SJVN Limited, Naitwar-Mori Hydro Electric Project, Mori, Distt.
Uttarkashi (Uttarakhand) - 249128
Customer's Ref. No.: SJVN/NMHEP/LOA/Envt./19-54 dt. 18.05.2019
Work Order No.: 19-0102-O-681
Sample Collected by: PCRI Staff Collection Date: 24.09.2020
Sample/Job: Water Samples of U/s of Mian Gad & D/s of Mian Gad

PARAMETER	UNIT	OBTAINED VALUE		Standard Limits*
		U/s Mian Gad (200323)	D/s Mian Gad (200324)	
Ammonical Nitrogen (as N)	mg/L	ND	ND	50
Arsenic (as As)	mg/L	ND	ND	0.2
BOD ₅ at 27°C	mg/L	2	3	30
Cadmium (as Cd)	mg/L	ND	ND	2.0
Chromium Hexavalent (as Cr ⁺⁶)	mg/L	ND	ND	0.1
Chromium Total (as Cr)	mg/L	ND	ND	2.0
COD	mg/L	6	8	250
Copper (as Cu)	mg/L	ND	ND	3.0
Colour	Hazen	20	25	-
Cyanide (as CN)	mg/L	ND	ND	0.2
Dissolved Phosphates (as P)	mg/L	0.21	0.24	5.0
Fluoride (as F)	mg/L	0.13	0.18	2.0
Free Ammonia (as NH ₃)	mg/L	ND	ND	5.0
Iron (as Fe)	mg/L	0.02	0.02	3.0
Lead (as Pb)	mg/L	ND	ND	0.1
Manganese (as Mn)	mg/L	0.01	0.01	2.0
Mercury (as Hg)	mg/L	ND	ND	0.01
Nickel (as Ni)	mg/L	ND	ND	3.0
Nitrate (as NO ₃)	mg/L	ND	0.67	10
Oil & Grease	mg/L	ND	ND	10

Contd..2

Arora
14/10/20

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PCRI/051

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POLLUTION CONTROL RESEARCH INSTITUTE

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BHARAT HEAVY ELECTRICALS LIMITED

RANIPUR, HARIDWAR (U.K.) - 249 403

(Approved Lab under Environment (Protection) Act, 1986; EIA Consultant by NABET, QCI)

TEST REPORT

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PARAMETER	UNIT	OBTAINED VALUE		Standard Limits*
		U/s Mian Gad (200323)	D/s Mian Gad (200324)	
Odour		Agreeable	Agreeable	-
pH		7.9	8.4	5.5-9.0
Phenols (as C ₆ H ₅ OH)	mg/L	ND	ND	1.0
Selenium (as Se)	mg/L	ND	ND	0.05
Sulphide (as S)	mg/L	ND	ND	2.0
Temperature	°C	12.3	12.4	shall not exceed 5°C above the receiving water temperature
Total Dissolved Solids	mg/L	120	132	-
Total Kjeldahl Nitrogen (as N)	mg/L	ND	ND	100
Total Residual Chlorine	mg/L	ND	ND	1.0
Total Suspended Solids	mg/L	56	84	100
Vanadium (as V)	mg/L	ND	ND	0.2
Zinc (as Zn)	mg/L	ND	ND	5.0

ND - Not Detectable

*(SCHEDULE VI OF EPA, 1993) FOR DISCHARGE INTO INLAND SURFACE WATER.

S. Bhatnagar
(Dr. S. Bhatnagar) 14/10/20

Sr. Dy. General Manager (PCRI)

डा. एस. भटनगर/Dr. S. Bhatnagar
वरिष्ठ उप महाप्रबन्धक/Sr. Dy. General Manager
Pollution Control Research Institute
प्रदूषण नियन्त्रण अनुसंधान संस्थान
BHEL, Ranipur, Haridwar

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TEST REPORT
AMBIENT AIR MONITORING

Lab. Ref.:PCRI: Air & Noise: 2020-21 :813
 Date: 05.10.2020

A. GENERAL INFORMATION:

1.	Name and address of Plant	:	M/s SJVN Limited, Naitwar-Mori Hydro Electric Project, Mori, District- Uttarkashi (Uttarakhand)
2.	Work Order No.	:	19-0102-0-681
3.	Date of sampling	:	24-09-2020 To 25-09-2020
4.	Location of Sampling	:	Barrage Office (Site)
5.	Method of Sampling	:	IS:5182, Part-II-2001, Part-IV-1999, Jacob & Hochheiser Modified (Na-Arsenite), NDIR and Gravimetric (PM10 Sampler)
6.	Duration of Sampling	:	24 Hours
7.	Sample collection by	:	PCRI, B.H.E.L., Ranipur, Haridwar-U.K.

B. RESULTS OF AMBIENT AIR MONITORING:

Sl. No.	Parameter	Unit	Obtained Value	Allowable Limit**
1.	Suspended Particulate Matter (SPM)	µg/m ³	68	-
2.	Particulate Matter less than 10 µm or PM ₁₀	µg/m ³	47	100
3.	Particulate Matter PM _{2.5}	µg/m ³	30	60
4.	Sulphur Dioxide (SO ₂)	µg/m ³	BDL	80
5.	Nitrogen Dioxide (NO ₂)	µg/m ³	9	80
6.	Carbon Monoxide (CO)	mg/m ³	0.25	4

BDL: Below Detectable Limit,

** :National Ambient Air Quality Standards as per CPCB Notification N. Delhi, the 18 Nov. 2009

Issued by

(Ambrish Goel)

Addr. General Manager (PCRI)

अमरीश गोयल/AMBRISH GOEL
 अपर सहायक/Addr. General Manager
 प्रदूषण नियन्त्रण अनुसंधान संस्थान
 Pollution Control Research Institute
 BHEL, HEEP, HARIDWAR

Services Offered : Monitoring of Air, Water, Noise & Solid Waste as per requirement of EP Act of CPCB & SPCB and providing Test reports, Environmental Impact Assessment, Environmental Audits reports

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RANIPUR, HARIDWAR (U.K.) - 249 403
(Approved Lab under Environment (Protection) Act, 1986; EIA Consultancy by NABET, QCI)



ISO 9001-2008 OHSAS 18001-2007

TEST REPORT
AMBIENT AIR MONITORING

Lab. Ref.:PCRI: Air & Noise: 2020-21 :814
Date: 05.10.2020

A. GENERAL INFORMATION:

1.	Name and address of Plant	:	M/s SJVN Limited, Naitwar-Mori Hydro Electric Project, Mori, District- Uttarkashi, Uttarakhand
2.	Work Order No.	:	19-0102-O-681
3.	Date of sampling	:	24-09-2020 To 25-09-2020
4.	Location of Sampling	:	Near Power House Office (Site)
5.	Method of Sampling	:	IS:5182, Part-II-2001, Part-IV-1999, Jacob & Hochheiser Modified (Na-Arsenite), NDIR, PM10 Sampler Gravimetric
6.	Duration of Sampling	:	24 Hours
7.	Sample collection by	:	PCRI, B.H.E.L., Ranipur, Haridwar-U.K.

B. RESULTS OF AMBIENT AIR MONITORING:

Sl. No.	Parameter	Unit	Measured Values	Allowable Limit**
1.	Suspended Particulate Matter (SPM)	µg/m ³	65	-
2.	Particulate Matter less than 10 µm or PM ₁₀	µg/m ³	48	100
3.	Particulate Matter PM _{2.5}	µg/m ³	29	60
4.	Sulphur Dioxide (SO ₂)	µg/m ³	BDL	80
5.	Nitrogen Dioxide (NO ₂)	µg/m ³	11	80
6.	Carbon Monoxide (CO)	mg/m ³	0.3	4

BDL: Below Detectable Limit,

**National Ambient Air Quality Standards as per CPCB Notification N. Delhi, the 18 Nov. 2009

Issued by

(Ambrish Goel)

Addl. General Manager (PCRI)

अमरीश गोएल / AMBRISH GOEL
आपत प्रमुख / Addl. General Manager
प्रदूषण नियंत्रण अनुसंधान संस्थान
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