

**National Mission for Clean Ganga (NMCG)
Ministry of Water Resources, River Development
& Ganga Rejuvenation,
Govt. of India**

**The development of sewage treatment
plant and associated infrastructure
under Hybrid Annuity based PPP mode
at Varanasi in the State of Uttar Pradesh**

(LoA File Number: Rd-63014/1/2017/PPP/NMCG)

**Monthly Inspection Report
of
Project Engineer**

December - 2019



Executing Agency

**Uttar Pradesh Jal
Nigam,
Varanasi - 221 005**



Funding Agency

**National Mission for
Clean Ganga
MoWR, River
Development & Ganga
Rejuvenation,
New Delhi - 110002**



Project Engineer

**Mahindra Consulting
Engineers Limited
Mahindra Towers, No.
17/18, Pattullous Road,
Chennai - 600 002,
Tamil Nadu, India**



Concessionaire

**Varanasi STP Project
Private Limited
6th Floor, Plot No. 19,
Film City, Sector 16 A,
Gautam Buddha Nagar,
Noida,
Uttar Pradesh - 201 301**

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Monthly Inspection Report

1.0. Introduction

The Gol, recognizing that long-term rejuvenation of the river Ganga will have significant social and economic benefits on the lives of the 500 million people living along its basin, has identified cleaning of the river Ganga as one of its priorities. For this purpose, in May 2015, the Gol approved the flagship Namami Gange programme for cleaning, rejuvenation, and protection of the river Ganga. In January 2016, the Gol approved a hybrid annuity model to implement STP projects under the Namami Gange programme on a PPP basis.

Subsequently, the MoWR issued the River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016 (Ganga 2016 Order) to constitute various authorities to assist the Gol in achieving its aim of effective abatement of pollution in the river Ganga. The Ganga 2016 Order applies to all states in the catchment of the river Ganga basin, including Uttar Pradesh. The Ganga 2016 Order revised the legal status of NMCG (which was initially constituted as a registered society under the Societies Registration Act, 1860) to an authority constituted under the Environment (Protection) Act, 1986 and designated NMCG as the nodal agency for the implementation of the Ganga 2016 Order.

Rapidly increasing population, rising standards of living and exponential growth of industrialisation and urbanisation have exposed water resources, in general, and rivers, in particular, to various forms of degradation. The mighty Ganga is no exception. The deterioration in the water quality impacts the people immediately. Ganga, in some stretches, particularly during lean seasons has become unfit even for bathing. The threat of global climate change, the effect of glacial melt on Ganga flow and the impacts of infrastructural projects in the upper reaches of the river, raise issues that need a comprehensive response.

In the Ganga basin approximately 12,000 million litres per day (MLD) sewage is generated, for which presently there is a treatment capacity of only around 4,000 MLD. Approximately 3000 MLD of sewage is discharged into the mainstream of the river Ganga from the Class I & II towns located along the banks, against which treatment capacity of about 1000 MLD has been created till date.

The Uttar Pradesh Jal Nigam (Jal Nigam) is a statutory body constituted under the Uttar Pradesh Water Supply and Sewerage Act, 1975, and has the power to develop, maintain and regulate water supply and sewerage works in Uttar Pradesh. With a view to implement the Namami Gange programme and the Ganga 2016 Order, the Jal Nigam, in association with the NMCG, has decided to undertake the development of an STP with a proposed capacity of 50 MLD along with other Facilities and Associated Infrastructure at Varanasi on a PPP basis, through a hybrid annuity model. While the Jal Nigam will be the principal executing agency and bidding authority for the Project, NMCG will be responsible for making payments to the Concessionaire.

The objectives that NMCG and the UP Jal Nigam wish to achieve through the Project is mentioned in **Figure 1**.

Intercept raw sewage flowing into the river Ganga and divert the raw sewage to the Varanasi STP;

Treatment of the raw sewage at the Varanasi STP;

Implement viable technologies and international best practices for development, operation and maintenance of the Varanasi STP and other facilities and

Demonstrate large scale private sector participation and mobilisation of private sector investment to further the national aim of rejuvenation of the river Ganga.

Figure 1: Objectives of NMCG and UP JAL NIGAM

Government of India, has approved the Namami Gange program as an integrated approach for effective abatement of pollution in river Ganga. As part of this and to ensure that no untreated domestic sewage flow into the river Ganga, various interventions are planned such as Interception & Diversion works and development & operation of Sewage Treatment Plants (STPs). Considering various development models in practice for the construction, operation and maintenance of Sewage Treatment Plants, Government of India has approved the Hybrid Annuity based Public Private Partnership (PPP) mode as one of the options for the development & operation of STPs. Under this model, private investor/developer will design, build, finance, operate and transfer the asset (STP) to the Project.

Executing Agency/Jal Nigam/Jal Sansthan / Urban Local body at the end of the Concession Period (say 15 years). 40% of the Capital cost will be paid to the developer during construction of the STP. Balance 60% along with Operation & Maintenance

(O&M) cost will be paid over the Concession Period on achievement of key performance indicators as per the contract. Entire cost of development and operation of the STPs will be 100% funded by the Government of India as central sector scheme. It is also envisaged to explore the possibility of recycle/ reuse of the treated waste water for non-potable purpose.

NMCG & UPJN appointed M/s. Mahindra Consulting Engineers Limited, Chennai as Project Engineer for this project through tendering process. Letter of Award is issued dated 5th January 2018 and agreement signed between the parties on 16th February 2018. The progress report for the month of November 2019 is submitted on 12th December 2019 by the concessionaire. Key expert from MACE Inspected the site on 29th December 2019 and the Inspection report for the month of December 2019 is submitted.

1.1. Project components

1.1.1. New construction units

- Inlet structure
- Grit chambers & Parshall flume
- SBR tanks
- Chlorine contact tank
- Overhead treated water tank
- Air blower room
- Belt filter press building
- Chlorination building
- Electrical building and control room
- Admin building, laboratory room
- Transformer yard, internal roads & drainage
- Treated water pump house
- Treated effluent disposal line
- Bund wall
- Staff quarters with 25KLD OHT
- Approach road

1.1.2. Rehabilitation works

- Rehabilitation of Main Pumping Station (MPS)
- Construction of Weir
- Strengthening & Pipe protection of Rising main

- Construction of Control room
- Rerouting the raising main near Samne Ghat

1.2. Methodology adopted

1. Discussion with MACE Site engineers, UPJN officials, Concessionaire’s site engineers at project site
2. Review of site progress and available documents at site
3. Field inspection with UPJN and the concessionaire
4. Evaluating the status of physical progress
5. Quality assurance and quality control records
6. Commercial performance and financial progress of the project
7. Compliance to statutory requirements

1.3. Construction plan

Concessionaire has submitted the revised construction plan Rev. 7 on 24th August 2018. Project engineer recommended to approval on the same to UPJN on 1st September 2018 and same is approved by UPJN on 13th September 2018. The overall physical progress is arrived based on the approved construction plan and presented below. Also, the work breakdown schedule for each activity is modified based on the approved financial milestone received from UPJN on 18th June 2018.

1.4. Overall physical progress status as on 28/12/2019

SI. No.	Description	Progress in Percentage as on 28/12/2019	
		Scheduled	Achieved
1	Pre-execution activities	100%	100%
2	Design and detailed engineering	100%	99.47%
3	Procurement	100%	76.50%
4	Construction and installation activities	100%	87.77%
5	Rehabilitation of associated infrastructures	100%	74.99%
6	Mechanical Installation	100%	0%
7	Erection of Mechanical Equipment	100%	0%
8	Electrical & Instrumentation Installation	100%	0%
9	Pre-Commissioning	100%	0%
	Overall progress	100%	78.41%

1.4.1. Important issues identified during visit on and to be addressed by the concessionaire immediately

Sl. No.	Issue identified	Status
A	Issues pending till last visit	
1	Progress of work is lagging the schedule, it has to be expedited	Partially initiated
2	Concessionaire has to commence the activities immediately which are already scheduled to start but not yet started	Partially initiated
3	Concessionaire to submit the action taken on strengthening and protection of existing rising main from MPS to STP. Completion date of this work is already over.	No progress
4	<p>There is a delay / no activity in the execution of civil works pertaining to the following structure while comparing with approved construction plan</p> <ul style="list-style-type: none"> • Bund wall • Inlet structure • SBR • CCT • Final outfall chamber • BFP building • Staff quarters • Overhead Treated Water Tank • Construction of Blower room, HT, MCC, Transformer Yard, DG set Area • Admin building <p>Concessionaire to take necessary steps to mitigate the delay</p>	<p>VSPPL informed that partial fund released by lender and the completion of work shall be expedited at the earliest in order to meet the construction completion target date of 31st March 2020.</p>
5	Manufacturing progress status not submitted by the VSPPL	Partially initiated
6	VSPPL yet to apply for the permanent power connection	UPJN informed that fund request sent to SMCG and waiting for release of fund

Sl. No.	Issue identified	Status
7	Workmanship for stone pitching work in Bund wall need to be improved	VSPPL agreed to improve the workmanship
8	MACE requested VSPPL to start the works at MPS, Weir and complete all the work on or before 31 st May 2019 otherwise the execution of this work shall become impossible due to water level rise in River Ganga until November 2019	VSPPL informed that partial fund released by lender and the completion of work shall be expedited at the earliest in order to meet the construction completion target date of 31 st March 2020.
9	MACE requested VSPPL to construct the Final outfall chamber before monsoon	VSPPL informed that partial fund released by lender and the completion of work shall be expedited at the earliest in order to meet the construction completion target date of 31 st March 2020.

Sl. No.	Issue identified	Status
10	MACE and UPJN requested to ensure the completion of all first milestone and second milestone pending activities as per approved construction plan to avoid retention of penalty levied due to delay before completion of third milestone for which due date falls on 18 th May 2019.	VSPPL informed that they will do the needful to minimize the penalty
11	If the work along the Ganga basin is not completed before start of monsoon i.e. 15 th June 2019, then the project completion will be delayed by another 4 to 5 months due to non-availability of work front	Partially initiated
12	Procurement activities such as inspection of manufactured items is also pending due to financial issues	Partially initiated
13	MACE requested VSPPL to furnish the equipment inspection call / equipment procurement dates/ delivery of inspected items for the following: <ul style="list-style-type: none"> • DG • Diffuser • Values • Volute press • PE Dosing tank • SCADA 	Partially initiated.
14	MACE informed to concentrate on the procurement of electrical and instrumentation system	Partially initiated
15	MACE expressed their dissatisfaction about NIL progress at site even after the release of fund by Lender	Work progress is very slow
16	MACE and UPJN requested to update on the final date for completion of trench less pipeline in rising main since the earlier committed date of 30 th May 2019 is already over	Partially initiated
17	VSPPL informed that due to encroachment in the MPS approach, the movement of concrete mixer is impossible and hence requested UPJN to do the needful	UPJN is in the process of solving the issue

Sl. No.	Issue identified	Status
18	MACE informed that during the visit of NMCG, it was informed that the encroachment within the STP site (agricultural land and House) to be removed at the earliest in order to ensure the safety during operation and maintenance	UPJN is in the process of solving the issue
19	MACE and UPJN requested VSPPL to accelerate pending activities with regards to the completion of all first milestone, second milestone and third milestone	Still pending
20	Suitable protection measures for the Bund wall from the rain to be undertaken since necessary stone pitching and drainage system are not in place	Still pending
B	Issues identified during this visit other than the issues mentioned above	
1	As per approved construction plan entire construction completion should have been completed by VSPPL on or before 18th November 2019 whereas remaining works around 22% yet to be achieved by VSPPL. VSPPL could not able to achieve the progress due to their internal financial problem with the lender. However, it was resolved during 27 th December 2019 meeting with YES bank. VSPPL assured to achieve the construction completion on or before 31 st March 2020.	

1.5. Quality assurance and project quality review

Quality assurance and project quality of various components under construction are given in the table below.

1. Bund wall

S. No.	Description	IS Code	Till previous month				During this month (01-12-19 to 28-12-19)				Remarks
			As per IS No of test required	No. of Test conducted	No. of Acceptance	No. of Rejects	As per IS No of test	No. of Test conducted	No. of Acceptance	No. of Rejects	
1	Soil compaction test at source (Borrow pit) - MDD, OMC & Soil characteristics	2720-1983 Part VIII	22	22	12		-	-	-	-	10 sample taken and sent to third party testing and waiting for their report.
2	Soil compaction test at site - OMC & Degree of compaction	2720-1983 Part II	1518	1518	1362	156	-	-	-	-	Out of 1518 samples, 156 failed in the compaction test initially. The area where the samples were taken were reworked, samples were collected again, tested and were result found acceptable.

2. New construction units

Sl. No.	Description	IS Code	Till previous month				During this month (01-12-19 to 28-12-19)				Remarks
			As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	As per IS No of test required	No. of Test conducted	No. of Acceptance	No. of Rejects	
1	Coarse - aggregate 20mm down	IS 383-2016	60	104	87	17	4	4	4	-	17 rejects (oversize) removed from site.
2	Coarse -aggregate 10mm down	IS 383 - 2016	50	66	61	5	2	2	2	-	5 rejects (undersize) removed from site.
3	Fine aggregate 4.75 mm down	IS 383 - 2016	58	77	72	5	3	3	3	-	5 rejects (undersize) removed from site.
4	Combined Grading as per approved IIT Mix design	IS 383 - 2016	Whenever required	4	4	-	Whenever required	-	-	-	As per approved mix 60% of 20mm and 40% of 10mm being used.
5	Hardened concrete Compressive strength	IS 516 & IS 456	Every 50m ³ or part thereof	1,359	1,359	-	72	72	72	-	-
6	OPC Cement 43 Grade	IS 8112-2013	Every batch	1	1	Every batch	-	-	-	-	UltraTech MTC
7	Reinforcement TMT Bars	IS 456 - 2000, IS 1786 - 2008 & IS 800 - 2007	One sample for each size per 50 MT	51	51	-	One sample for each size per 50 MT	-	-	-	TATA Steel MTC / Third party report for all consignment.

Development of 50 MLD sewage treatment plant and associated infrastructure on PPP basic at Ramana, Varanasi

Sl. No.	Description	IS Code	Till previous month				During this month (01-12-19 to 28-12-19)				Remarks
			As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	As per IS No of test required	No. of Test conducted	No. of Acceptance	No. of Rejects	
8	Admixture	IS 9103 -1999	Every new lot	1	1	-	Every new lot	-	-	-	FOSROC Conplast SP430G8/ MTC.
9	Water	IS 456 - 2000	Once in six months	3	2	-	Once in six months	-	-	-	1 sample sent to IIT BHU on 28/03/2019. Awaiting report.
10	Mix design	IS 10262 - 1982	Whenever source of material changes	M10, M15, M20, M25, M30	Approved IIT BHU & accepted by client	-	Whenever source of material changes	M10 M15 M20 M25 M30	Approved IIT BHU & accepted by client	-	As per approved mix 60% of 20mm and 40% of 10mm being used.
11	Field control test: Slump / Concrete temperature/ unit weight	IS 456, SP 23 & IS 516	Every alternate truck	575	562	13	Every alternate truck	10	10	-	13 samples were rejected initially. They were rectified, rechecked and were found acceptable.
12	Bricks	IS 1077 & IS 5454	20nos to be selected from a lot of 2000-10000.	92	72	-	NA	-	-	-	20 Nos sent to third party testing. Results were found acceptable

3. Treated Effluent disposal line

Sl. No.	Description	IS Code	Till previous month				During this month (01-12-19 to 28-12-19)				Remarks
			As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	
1	PSC Pipes 1200mm dia – characteristics Test (Dimension, Straightness, Thickness, Hydrostatic & Permeability)	IS 784 & IS 3597	787	787	752	35	-	-	-	-	Out of 787 pipes, 35 pipes were rejected initially. These were later rectified, tested again and found acceptable.
2	Soil Test – SBC of soil	IS 6403	4	4	4	-	-	-	-	-	
3	EPDM Gasket	IS 5389-1979	741	741	741	-	-	-	-	-	

4. Raising main

S. No.	Description	IS Code	Till previous month				During this month (01-12-19 to 28-12-19)				Remarks
			As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	As per IS No of test	No of Test conducted	No of Acceptance	No of Rejects	
1	MS Pipes 1000mm dia. - characteristics Test (Dimension, Thickness, Hydro testing, Epoxy coating, Anti corrosive coating & Marking)	IS 3589: 2001	356.72 Mtrs (74 nos)	356.72 Mtrs (74 nos)	356.72 Mtrs (74 nos)	-	-	-	-	-	Factory inspection done 110 mtrs along with client at GD industries, Delhi, Noida
2	Dye penetration test Cleaner- CL 96 Penetrator – PT97 Developer – DL 98 Mode of application – Spray	IS 23277: 2015	58	58	58	-	5	5	5	-	<ul style="list-style-type: none"> • Lighting equipment – Laser • Dwell time – • 2 to 5 min • Developing time – 10 to 15 min

5. Construction Running Materials / Equipment's

Sl. No.	Description	IS Code	Till previous month				During this month (01-12-19 to 28-12-19)				Remarks
			As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	
1	Auto level (SBR / Pipe lines / bund wall)	BIS 1492	Yearly once	6	3		NA				
2	Cube testing Machine	IS 14858- 2000	Yearly once	4	4		NA				
3	Laboratory weighing machine	IS 9281 (part III) -1981	Yearly once	4	4		NA				
4	Ready Mix Concrete plant	IS 14858-2000	Whenever required	6	6		NA				

1.6. Financial status for construction work

- **Contract amount:** Rs. 153.15 crores (Rs. 102 crores for construction + Rs. 51.15 crores for O&M)

Financial progress in % as on 28.12.2019

Scheduled / Planned completion as on 18th November 2019 in %	Up to previous month (25 th November 2019) completion in %	Completion during this month (25 th November 2019 to 28 th December 2019) in %	Total completion up to 28 th December 2019 in %
100%	77.67%	0.74%	78.41%

Status of financial expenditure as on 28.12.2019

Sl. No	Description	Total expenditure incurred (NMCG & VSPPL) Rupees in crore	Expenditure incurred by VSPPL in Rupees in crore	Expenditure incurred by NMCG in Rupees in crore	Expenditure incurred as per site progress Rupees in crore
1	Mobilization advance (10% of Rs.102 Cr)	10.20		10.20	79.97
2	First mile stone payment (25% of Rs.110.47 Cr) as per price index	27.62	16.57	11.05	
3	Deduction of mobilization advance for first milestone (25% of mobilization of advance)	-2.55		-2.55	
4	Deduction of interest on mobilization advance upto first milestone (25% of mobilization of advance)	-0.46		-0.46	
5	Deduction of delay damage on first milestone	-0.89		-0.89	
6	Second milestone payment (25% of Rs.110.16 Cr) as per price index	27.54	16.52	11.02	
7	Deduction of mobilization advance for second milestone (25% of mobilization of advance)	-2.55		-2.55	

Development of 50 MLD sewage treatment plant and associated infrastructure on PPP basic at Ramana, Varanasi

Sl. No	Description	Total expenditure incurred (NMCG & VSPPL) Rupees in crore	Expenditure incurred by VSPPL in Rupees in crore	Expenditure incurred by NMCG in Rupees in crore	Expenditure incurred as per site progress Rupees in crore
8	Deduction of interest on mobilization advance upto second milestone (25% of mobilization of advance)	-0.19		-0.19	
9	Deduction of delay damage on second milestone	-0.49		-0.49	
10	Released of GST Amount	1.74		1.74	
11	Third milestone payment (25% of Rs.114.65 Cr) as per price index	28.66	17.20	11.46	
12	Deduction of mobilization advance for third milestone (25% of mobilization of advance)	-2.55		-2.55	
13	Deduction of interest on mobilization advance upto Third milestone (25% of mobilization of advance)	-0.29		-0.29	
14	Deduction of delay damage on third milestone	-1.57		-1.57	
15	Release of liquidation damage	0.89		0.89	
	Total	85.11	50.29	34.82	

1.7. ESHS targets, achievements and compliance report

1. ESHS Target and achievement

Health & Safety Targets and Goals

SI. No.	Goals	Till previous month	During the month of December (01.12.2019 to 28.12.2019)
1	Zero total recordable injuries	Achieved	Achieved
2	All personnel Health and Safety inducted	Inducted	Inducted
3	100% incident reporting and investigation	No incident occurred	No incident occurred
4	100% adherence of usage of appropriate PPE's at work	Ensured	Ensured
5	Executing construction work with least disturbance to the environment, adjoining road users and traffic	Achieved	Achieved

HSE Training and competence adherence

Sl. No.	Description	Till previous month	During the month of December 2019
1	<p>HSE induction training at the first day of their joining explaining the nature of the work for all the personnel working at site on the following topics</p> <ul style="list-style-type: none"> • Hazard identification procedure - Hazards on site <ul style="list-style-type: none"> • Fails • Slip trip • Electricity • Working at height • Excavation • Drop objects • Machinery • Material handling (Manual and mechanical) • Transportation • Site housekeeping • Fire • Personnel protective equipment <ul style="list-style-type: none"> • What is available • How to obtain it? • Correct use and care • Health <ul style="list-style-type: none"> • Site welfare facilities • Potential health hazards • First Aid / CPR • Duties of contractor <ul style="list-style-type: none"> • Brief outline of the responsibilities of the contractor by law • Details of accident prevention policy • Building and other constructions welfare law 	Inducted	Inducted

Sl. No.	Description	Till previous month	During the month of December 2019
	<ul style="list-style-type: none"> • Employer's duties • Brief outline of responsibilities of employee • Site safety rules 		
2	Tool box meetings Key issues discussed at Daily Tool Box meetings includes <ul style="list-style-type: none"> • The job to be done • Awareness of hazards, risks & control measures associated with specific activity, review safe work practices • Active involvement of crew and open discussion on any concerns and commitment to work safely 	Conducted	None
3	Behavior modification and disciplinary action	None	None
4	Post-accident or near miss meeting	No accident occurred	No accident occurred

HSE Inspections and submission of reports

Sl. No.	Description	Till previous month	During the month of December 2019
1	Planned General Inspection	Conducted	Conducted
2	Routine Inspection		
2.1	Daily Inspection of plant and equipment by operator	Conducted	Conducted
2.2	Weekly inspection of scaffold by scaffolding supervisor	Conducted	Conducted
2.3	Monthly Inspection of Electrical hand tools by competent electrical supervisor	Conducted	Conducted
2.4	Quarterly inspection of temporary electrical systems by competent electrical supervisor	Conducted	None
2.5	Yearly inspection of lifting machinery, lifting appliances, equipment and gears by Government approved competent person	NA	NA
2.6	Half yearly inspection of pressure vessels by Govt approved competent person	NA	NA
3	Specific Inspection	-	-
3.1	Inspection performed before a heavy lifting operation	Conducted on regular basis before starting the jobs	Conducted on regular basis before starting the jobs
3.2	Inspection performed before and after the entry of person into a confined space	01 No. Conducted on 27 th May 2018 (MPS desilting)	NA
3.3	Inspection performed before and after welding and gas cutting operation	Conducted	NA
3.4	Inspection of formwork before concreting by formwork erector	Conducted	NA
4	Other Inspection	-	-

Sl. No.	Description	Till previous month	During the month of December 2019
4.1	Inspections by labour department of government	Nil	Nil
4.2	Client site HSE management team	Nil	Nil
5	Monthly HSE Report submission covering <ul style="list-style-type: none"> • Monthly minor accident, serious incident details • Average manpower details, man-hours works • Lost time (no of working days) • Number of training / tool box talk • Number of people trained • HSE committee minutes of meeting • HSE Inspection, etc 	None	None
6	HSE Bulletin board indicating <ul style="list-style-type: none"> • Safety promotions / awards • Safety meeting dates and times • Emergency phone numbers • QHSE policies • Safety alerts 	Available	Available
7	Risk assessment prior to start of any new work – Report	Conducted by HSE Manager	Conducted by HSE Manager
8	Availability of method statement for operational control of significant occupational health & safety risk levels	Available at site office	Available at site office except method statement
9	Statement of confirming the medical examination of all employees and workmen	Conducted	None
10	Availability of first aid box with each crew (mention the number of first aid box availability)	Available	Available

Sl. No.	Description	Till previous month	During the month of December 2019
11	Statement of confirming the welfare measures for workers	-	-
11.1	One latrine for every 20 workers upto 100 workers and thereafter one for every additional 50 workers	03 number of latrines provided	03 number of latrines provided
11.2	In addition one urinal accommodation provided for every 100 workers	03 number of urinals provided	03 number of urinals provided
11.3	Separate latrine and urinals accommodation similar to above for ladies	01 number of urinals Provided	01 number of urinals Provided
11.4	Drinking water facility within a distance of 200 m from the place of work for all workers	Provided at 04 locations	Provided at 04 locations
11.5	Provision of labour accommodation	Provided for 120 labour	Provided for 120 labour
11.6	Provision of creche (if female workers are more than 50)	NA	NA
11.7	Measures to prevent mosquito breeding	Taken	Taken
11.8	Permit to work system (if applicable)	Provided	Provided
12	PPE adherence	-	-
12.1	Head protection for VSPPL employees, All sub-contractors, Electricians, Safety professionals, All workmen and Visitors Safety helmet color code (every helmet having the logo)	Provided	Provided
12.2	Hearing protection	Provided	Provided
12.3	Eye protection	Provided	Provided
12.4	Foot protection	Provided	Provided
12.5	Fall arresting system	Provided	Provided
12.6	Hand protection	Provided	Provided
12.7	Respiratory protection	Provided	Provided
12.8	Other PPE – 10% spares availability	Provided	Provided

Sl. No.	Description	Till previous month	During the month of December 2019
13	Qualification of operator of lifting appliances and of signaler etc Above 21 years of age and possesses a valid heavy transport driving license as per motor vehicle act and rules Competent and reliable Possesses the knowledge of inherent risks involved in the operation of lifting appliances Periodical medical examination conducted	Adhered	Adhered
14	Sufficient lighting especially during night work	Provided	Provided
15	Fire prevention and fighting system availability	Available	Available
16	Adherence of environment management system – Air quality, Water quality, Wastewater handling, waste handling, hazardous waste handling and energy management	Adhered as per the applicable law	Adhered as per the applicable law

HSE communication and awareness campaign conducted

Sl. No.	Description	Status	Planned
1	4 th March 2018 – National safety day	Conducted	
2	7 th April 2018 – World health day	Conducted	
3	14 th April 2018 – First safety day	Conducted	
4	5 th June 2018 – World environmental day	Conducted	
5	15 th August 2018 – Independence Day celebration and Planting of saplings	Conducted	
6	5 th March 2019- National Safety day	Conducted	

1.8. Statutory requirements and compliance review

The concessionaire has obtained consent to establish from UPPCB. There is no requirement for land acquisition for STP as the land is already in possession.

ANNEX-1

Photograph

December 2019

<p>Air Blower Building – Parapet wall</p>	 <p>31-Dec-2019 12:19</p>
<p>Admin building – RCC flooring</p>	 <p>28-Dec-2019 13:15</p>

SBR -3



PTU – Parshall Flume



BFP



CCT – Treated water pump house



Admin building



Over Head Tank (OHT)



Staff Quarters – Type 3



Staff Quarters – Type 4- Flooring PCC



Monthly site visit and review meeting



Rising main – STP to Inlet chamber



ANNEX-2
Observation on November 2019
progress report submitted by the
concessionaire

Observations

The details provided in the monthly progress report is covering only the activities started by the concessionaire and lagging on the following aspects.

1. Extent of progress of the rehabilitation and/or upgradation activities performed by the Concessionaire for the Associated Infrastructure;
2. Comparison of actual progress against the planned progress of construction works, reasons for delay, if any and steps taken by the Concessionaire to mitigate the delay for all the activities
3. Details of any accident or hazardous incident at the Site and the steps taken by the Concessionaire to mitigate the consequences of such accident or hazardous incident; and
4. Monthly environmental Monitoring Reports to the Jal Nigam providing overview of compliance with EHS Plan.

Quality control plan, failures and success statistics for all the components along with mitigation measures